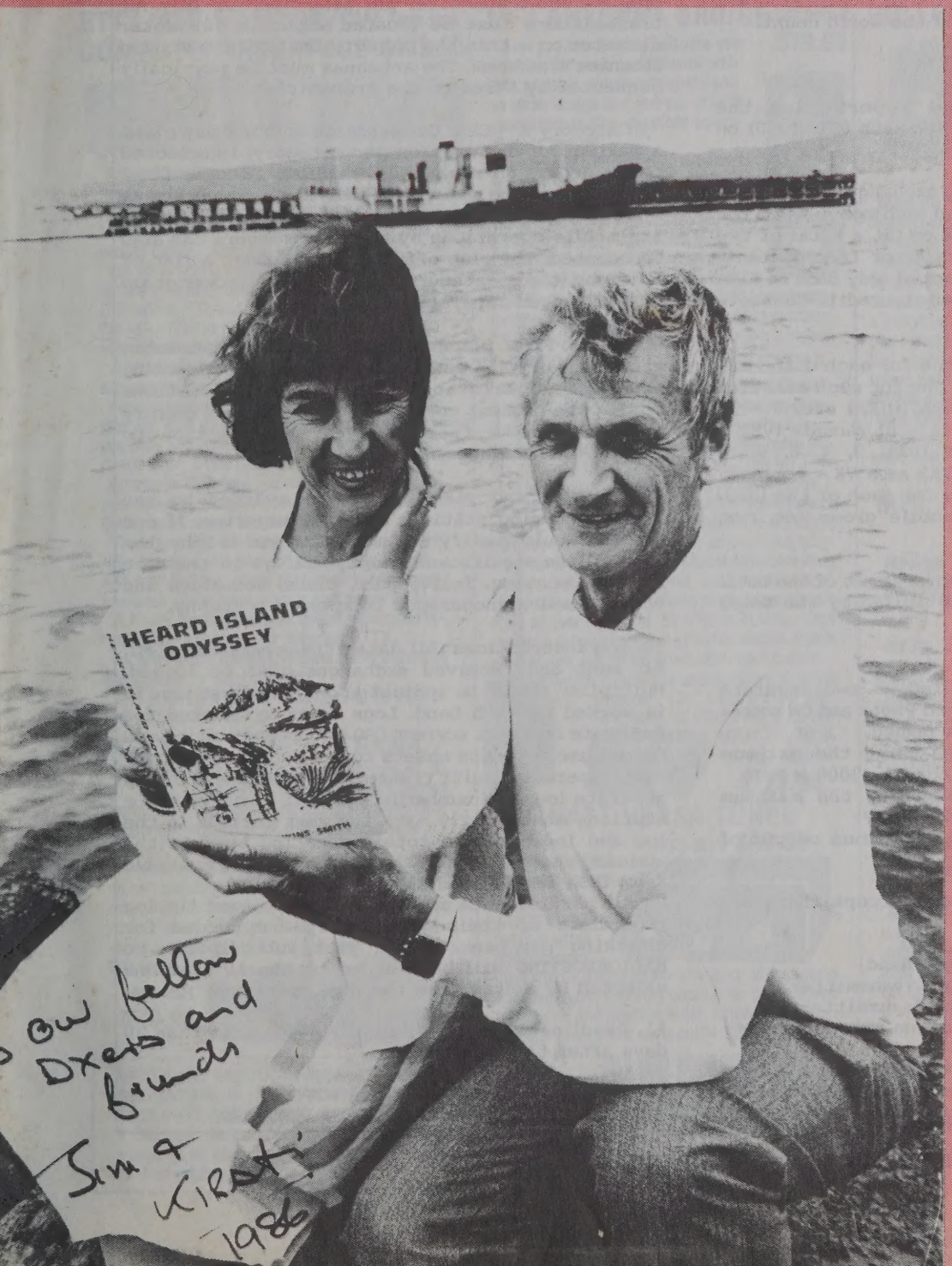
INTN'L MONTHLY MAGAZINE - BY AND FOR ACTIVE RADIOAMATEURS

RADIOSPORTING

JULY 1986 No. 20 8607 $2.00



IRSA STANDARD FOR COMPUTERIZED LOGGING

WORKING FOØXX THE HARD WAY

TUNING IN ON CRIMINALS

CRRL/CARF PROPOSAL

RADIO POETRY

VHF CONTESTING

WHAT NEXT?

RADIO FUNNIES

CONTEST SCORES
ARRL DX, CQ 160

FCC NEWS
DX NEWS
160 M BULLETIN
DXPEDITIONING
MAIL ROOM
EMERGENCY, TRAFFIC
PROPAGATION

KIRSTI, VK9NL &
JIM SMITH, VK9NS
DX HALL OF FAME

Announcing:

First IRSA World Radio Championship Contest

Phone: Saturday October 4, 1986, 0000 to 2400 GMT
CW: Sunday October 5, 1986, 0000 to 2400 GMT

The single operator stations may operate no more than 22 hours out of the 24 hours on each mode. A minimum of two hours of rest time may be taken in one or two rest periods.

The multi operator stations can operate the full 24 hour periods.

1. Objectives: For amateurs around the world to contact other amateurs in as many countries as possible. All contacts with fixed or mobile licensed amateur radio stations around the world count.

2. Bands: 1.8, 3.5, 7, 14, 21, 28 MHz

3. Number exchange: Signal report plus the consecutive QSO number starting with 001. (59001 on phone, 599001 on CW)

4. Points: Each correctly sent exchange is worth one point, each correctly received exchange is worth one point on phone and two points on CW, a total of two (three on CW) points for each error free contact. The same station can be contacted only once on each band and mode for a valid point credit. Contacts with own country count also.

5. Multipliers: A multiplier, one for each different DXCC country contacted, plus one for each call area in the following countries: USA (W/K/N etc. 0 - 9), Japan (JA1 - 0), Australia (VK1 - 8), Canada (VE1 - 8, VO1, VO2, VY1), RSFR-USSR (UA1, 3, 4, 6, 9, 0) on each band. (Do not count VK1 as a VK - country, too.) Also, a multiplier of one for each of the land, maritime and aeronautical mobile group (/M, /MM, /AM).

6. Scoring: The final score is the result of the total QSO points from all bands multiplied by the total multipliers from all bands.

7. Categories of competition:
Phone and CW are considered as two separate contests, however, the Combined Phone and CW scores will also be listed and awards issued.

H. High Power - stations using the maximum legal limit up to 1000 Watts output (2000 W PEP)

L. Low Power - stations using the maximum output power of 100 Watts (200 W PEP)

Q. QRP - stations using the maximum output of 5 Watts (10 W PEP)

In each of the above power groups there are the following categories:

A. Single Operator - All Band
B. Single Operator - Single Band
C. Multi Operator - Single Transmitter
D. Multi Operator - Multi Transmitter
E. Club Competition - Combined Phone and CW

Category A and B can be operated by a single operator, without any other assistance from other operators, repeater nets or bulletin boards.

Category C and D includes club stations, stations operated by more than one operator and single operator stations using repeater, spotting nets or any other assistance while operating.

The single transmitter category stations may use only one transmitter which is connected to the power source during the contest. In case of failure, it may be replaced by another transmitter. Spotting operators may only use receivers or transceivers with transmitter disabled.

The multi transmitter category stations may operate one transmitter per band simultaneously. All transmitters must be located within a 500 meter diameter or within the property limits of the station licensee's address. The antennas must be physically connected by wires to the transmitter.

Category E - Club Competition entries may claim a maximum of one station per category, in selected power group, on each mode (maximum 18). The final club score is the addition of individual highest scores made by the club members on both modes. Expeditions and mobile operations by the club members can also be counted. The club official must submit a list of stations, their category and scores. Each power group will be judged separately.

8. Awards: First place certificates will be awarded in each category and power group in every participating country, call area and mobile group. The stations having the highest combined score from each country will receive a free one year subscription to RADIOSPORTING magazine.

9. Trophies and plaques will be awarded to the highest scoring stations in all categories. If one station would qualify for more than one trophy, the second less significant trophy will go to the next eligible station. Individuals, clubs, societies and companies are encouraged to sponsor a trophy.

10. Log instructions: All dates/times must be in GMT. All sent and received exchanges must be logged. Multiplier should be indicated only the first time it is worked on each band. Logs must be checked for duplicate contacts, correct QSO points and multipliers. Do not use separate sheets for each band, except for multi operator, multi transmitter stations who keep separate logs and numbering per band. Single operator stations must clearly mark the rest periods in the log and indicate the total operating time on the summary sheet. Sample contest form kit is available from IRSA for SAE and $1 or 3 IRC.

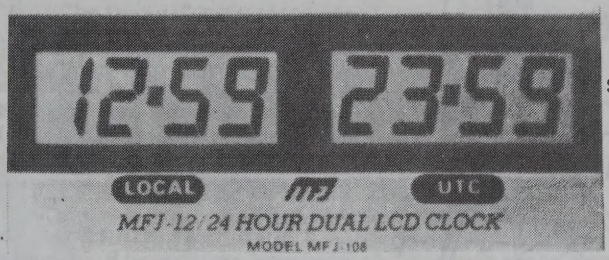
All participants are encouraged to send the log regardless of their score. They are needed for checking purposes. A one year subscription to RADIOSPORTING will be awarded to the 10 stations selected by a draw from the logs received.

11. Deadline: Logs must be mailed not later than 30 days after the contest to:

IRSA WRC Contest Chairman, W3FG,
P.O. Box 7, Odenton, MD, 21113-0007, USA

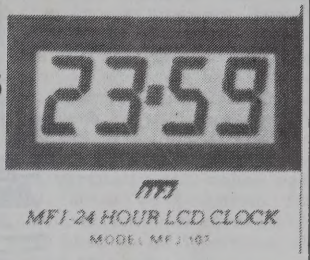
BEST OF MFJ

MFJ 24 HOUR LCD CLOCKS



MFJ-108 $19.95

MFJ-107 $9.95



These MFJ 24 hour clocks make your DXing, contesting, logging and SKEDing easier, more precise.

Read both UTC and local time at a glance with the MFJ-108, $19.95, dual clock that displays 24 and 12 hour time simultaneously. Or choose the **MFJ-107, $9.95** single clock for 24 hour UTC time.

Both are mounted in a brushed aluminum frame, feature **huge easy-to-see 5/8 inch LCD numerals** and a sloped face that makes reading across-the-shack easy and pleasant.

You can read hour, minute, second, month and day and operate them in an alternating time-date display mode. You can also **synchronize them to WWV** for split-second timing. Both are **quartz controlled** for excellent accuracy.

They are **battery operated** so you don't have to reset them after a power failure, and battery operation makes them suitable for mobile and portable use. Long life battery included.

MFJ-108 is 4½x1x2 in. MFJ-107 is 2¼x1x2 in.

RTTY/ASCII/AMTOR/CW COMPUTER INTERFACE MFJ-1229 $179.95

Everything you need is included for sending and receiving RTTY/ASCII/CW on a Commodore 64 or VIC-20 and your ham rig. You get MFJ's most advanced computer interface, software on tape and all cables. Just plug in and operate.

The MFJ-1229 is a general purpose computer interface that will never be obsolete. An internal DIP switch, TTL and RS-232 ports lets you adapt the MFJ-1229 to nearly any home computer and even operate AMTOR with appropriate software.

A crosshair "scope" LED tuning array makes accurate tuning fast, easy and precise.

You can transmit both narrow (170 Hz) and wide (850 Hz) shift while the variable shift tuning lets you copy any shift (100-1000 Hz) and any speed (5-100 wpm, 0-300 baud ASCII).

Automatic threshold correction and sharp multi-pole active filters give good copy under severe QRM, weak signal and selective fading.

There's an FM (limiting) mode for easy trouble-free tuning that's best for general use and an AM (non-limiting) mode that gives superior performance under weak signals and heavy QRM.

A handy Normal/Reverse switch eliminates re-tuning while checking for inverted RTTY.

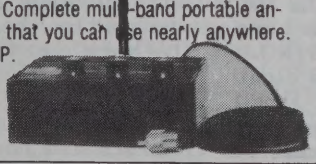
An extra sharp 800 Hz CW filter really separates the signals for excellent copy.

12½ x 12½ x 6 inches. Uses floating 18 VDC or 110 VAC with MFJ-1312, $9.95.

MFJ PORTABLE ANTENNA

MFJ's Portable Antenna lets you operate 40, 30, 20, 18, 15, 12, 10 meters from apartments, motels, camp sites, vacation spots, any electrically clear location where space for full size antenna is a problem.

A telescoping whip (extends 54 in.) is mounted on self-standing 5½ x 6¾ x 2¼ inch Phenolic case. Built-in antenna tuner, field strenght meter. 50 feet coax. Complete multi-band portable antenna system that you can use nearly anywhere. 300 watts PEP.



MFJ-1621 $79.95

MFJ ANTENNA BRIDGE MFJ-204B $79.95

Now you can quickly optimize your antenna for peak performance with this portable, totally self-contained antenna bridge that you can take to your antenna site—no other equipment is needed.

You can determine if your antenna is too long or too short, measure its resonant frequency and antenna resistance to 500 ohms. It's the easiest and most convenient way to determine antenna performance available today to anyone. There's nothing else like it and only MFJ has it. Built-in resistance bridge, null meter and tunable oscillator-driver (1.8-30 MHz). Uses 9 V battery. 4 x 2 x 2 inches.

REMOTE ACTIVE ANTENNA

The authoritative "World Radio TV Handbook" rates the MFJ-1024 as "a first-rate easy-to-operate active antenna ... Quiet, with excellent dynamic range and good gain ... Very low noise factor ... Broad frequency coverage ... the MFJ-1024 is an excellent choice in an active antenna"

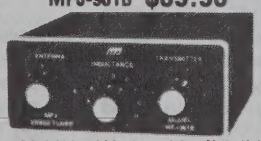
54 inch remote active antenna mounts outdoor away from electrical noise for maximum signal and minimum noise pickup. Often outperforms long-wire hundreds of feet long. Mount anywhere-atop houses, buildings, balconies, apartments, ships.

Use with any radio to receive strong clear signals from all over the world. 50 KHz to 30 MHz. High dynamic range eliminates intermodulation. Inside control unit has 20 dB attenuator, gain control. Switch 2 receivers and auxiliary or active antenna. "On" LED. 6 x 2 x 5 in. 50 ft. coax. 12 VDC or 110 VAC with MFJ-1312, $9.95.

MFJ-1024 $129.95

200 WATT VERSA TUNER

MFJ-901B $59.95



MFJ's smallest 200 watt Versa Tuner matches coax, random wires and balanced lines from 1.8 thru 30 MHz. Works with all solid state and tube rigs. Very popular for use between transceiver and final amplifier. Efficient air-wound inductor gives more watts out. 4:1 balun, 5x2x6 in.

ROLLER INDUCTOR TUNER

MFJ-989 $329.95

Meet the "Versa Tuner V", the compact roller inductor tuner that lets you run up to 3 KW PEP and match everthing from 1.8 to 30 MHz.

Designed to match the new smaller rigs, the MFJ-989 is the best roller inductor tuner produced by MFJ. Our roller inductor tuner features a 3-digit turn counter plus a spinner knob for precise inductance control for maximum SWR reduction. Just take a look at all these other great features! **Built-in 300 watt, 50 ohm dummy load, built-in 4:1 balun and a built-in lighted meter** that reads SWR and forward and reflected power in 2 ranges (200 and 2000 watts). Accuracy ±10% full scale. Meter light requires 12 VDC. 6 position antenna switch. 10¾ x 4½ x 15 inches.

MFJ "DRY" DUMMY LOADS

MFJ-262 $64.95

MFJ-260 $26.95

MFJ's "Dry" dummy loads are air cooled—no messy oil. Just right for tests and fast tune up. Non-inductive 50 ohm resistor in aluminum housing with SO-239. Full load to 30 seconds, de-rating curve to 5 minutes. **MFJ-260 (300 watt)**, SWR 1.1:1 to 30 MHz, 1.5:1, 30-160 MHz, 2½x2½x7 in. **MFJ-262 (1 KW)**, SWR 1.5:1 to 30 MHz, 3x3x13 inches.

MFJ ELECTRONIC KEYER

MFJ-407 $69.95

MFJ-407 Deluxe Electronic Keyer sends iambic, automatic, semi-auto or manual. Use squeeze, single lever or straight key. Plus/minus keying. 8 to 50 WPM. Speed, weight, tone, volume controls. On/Off, Tune, Semi-auto switches. Speaker. RF proof. 7 x 2 x 6 inches. Uses 9 V battery, 6-9 VDC or 110 VAC with AC adapter, MFJ-1305, $9.95.

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ve3bmv Radiotorial

Finally, the proportionally spaced text has arrived! This should make our material easier to read. It looks more like what we are used to seeing in the magazines and newspapers. The letters are larger, there are smaller spaces between the words and letters, and it is more familiar sight for the eyes. There was a price to pay - a delay with this issue. It took me four full days to make the WordPerfect program talk to our Fujitsu DPL24-I 24 wire dot matrix printer in the proportional spacing mode. As is usual in a case like this, the printer driver software that comes with the WordPerfect had only a "partial support." This translated into not working in the proportional spacing mode and not supporting many of the printer's features.

The only solution was to do it myself or no "good looking" pages. A few times I started to do just that, but I have always managed to run into a brick wall. Finally, the contester in me said: "Do it now, or you will never get it working." To make a long story short, the problems in the WordPerfect software were that printer drivers were not able to fully support the finer features of the Fujitsu printer. Also the Fujitsu manual did not reflect the truth about the printer.

"Eureka!" and "Yahooo" shook the RADIOSPORTING office one late night. The problems were solved, font tables configured and we are ready now to roll out proportional spacing, with crossed out zeroes and all those fancy graphic characters and frames. You should see more of that in our next issues as we become more experienced at using them. The WordPerfect is an excellent word processing package which can also convert the good old WordStar files. The next thing for us will be a laser printer. We are looking for one that can produce 11 x 17 inch pages, and take the printer and plotter output from the computer.
After our upcoming move to New Jersey and given your continuous support we should be more attractive by the end of this year. This brings us to another crunch with available time. My XYL Sonya bought us a house in Montville, NJ. which I haven't seen even a decent picture of yet. But I trust her since she picked out our present house and it turned out to be a ten times world record breaking radio QTH. The next two months will be very hectic, filled with packing, moving, taking down the Big Bertha, and who knows what else.

Unfortunately I have experienced a situation which many hams with a decent station do: it is hard to find the appreciative buyer for a good radio QTH. This happened with W2PV, KN3O and many others. I guess it must be the timing and because a very small percentage of serious hams are willing to make the move when the opportunity comes up. Thousands of hours are put into the setting up the station, antennas, training the neighbors etc. When there is no buyer there is no hope of recovering the invested labor of love. So, my recommendations are: don't make things too permanent, don't expect to recover the cost you "invested" in a ham radio installation, don't expect to find another "fool" like you dying to buy your place. Most likely it will be sold for the price of junk, piece by piece. A better bet is to put your investment into real estate or golden PL-259 connectors. Ham radio is a hobby after all. If one doesn't get sued for interfering with your neighbor's cheap radios and video recorders, one might even enjoy it.

I wish that all those who are pushing for the numbers and growth of amateur radio, spend some time fighting for our rights to put up antenna structures and RFI proofing the electronics gadgets that are coming out on the market. It is stupid to con us into getting a ham radio license when we can't put up an antenna (except maybe a flag pole) or we get into appliances which instead of cooking meat, receives our signals. Are we supposed to use only handheld transceivers?

The Canadian Radio Relay League and The Canadian Amateur Radio Federation came up with a proposal for the new licensing (licencing in Canada!) structure proposal that is much better than the one proposed by the Department of Communications. We are reprinting this proposal in this issue.

Our move to the states will create some delays with the RADIOSPORTING publishing schedule. We are running a bit late with this issue and it looks like July and August will also be hectic. Besides having to make new arrangements with the printers and the post office, we might have to skip an issue. One issue will bear the label of two issues in order to preserve the continuity. One issue will be added on to everyone's subscription. You paid for twelve issues, you'll get them. Our contributing editors will skip one month and take a well deserved break.

After August 1, please address all your correspondence to our New Jersey address. Thank you for your patience and understanding. We are really looking forward to our new QTH from which we hope to serve you better. There will be more room and more time to devote to RADIOSPORTING. I am planning to build a new generation of HF antenna systems and will write about the project in our magazine. I know that the competition in the US will be tough, but I am looking forward to comparing my skills on this new battlefield.

Also, we are looking forward to meeting many of you devoted DXers, contesters and friends in the Statue of Liberty land. There will be one more W/K/N-something to bump up the statistics.

An indepth report on the Dayton Hamvention was planned for this issue, but there was simply no time. Last year's reporter Mike, VE3JTQ, didn't make it this year and the tapes have yet to be transcribed.

It seems that the only way to get mentioned in some other publications is to go out of business. It was striking to see the speed with which the news about some of the DX bulletin closings appeared. Many publications have yet to mention the existence of RADIOSPORTING. Well, here is the news: RADIOSPORTING is closing! (But it will be back from a new home in NJ-land!)

Please tell your friends about RADIOSPORTING, our awards program, our contests and how fast we are with the news. Have you joined the IRSA yet? If not please do and support our contesting activities.
73 till then! Yuri, WE3BMV?

DX NEWS

ART HUBERT, N2AU
436 N. Geneva Street, Ithaca, NY 14850

The DX news from around the world as exchanged on the IRSA net and from other sources: Frankford Radio Club, Kansas City DX Club Newsletter, LIDXA Bulletin, QRZ DX, NCDXC CW Bulletin, South California DX Bulletin, Westlink Report, CRRL News, The DX Bulletin, KE2C, DJ9ZB, VE3BMV.
The IRSA net operates on Sundays around 14.200 MHz, starting at 2000Z and 3.830 (Mondays and Fridays t 0200 Z).

Summer in the northern hemisphere is in full swing, and added to this the bottom of the sunspot cycle and very few DX contests means very few DXpeditions, so you can make those antenna changes, chase DX leisurely, and spend some time with the XYL and harmonics - you know those other members of the family who don't see much of you in the fall and winter months. Also, remember that summer conditions on 10 meters can surprise you. Sporadic E skip opens the band into Europe at least several times during the summer months and, being that it's winter in the southern half of the world, South America and Oceania pop through at this time of the year, so call CQ on 10 meters and you might by pleasantly surprised at what responds to your call.

Mount Athos

The world of DX has always had its share of controversy, the latest of which is the recent operation by Frank, DL7FT, from Mt. Athos. Greek amateurs have stated that Frank's operation was not valid because he did not have a Greek license nor was he given permission by the Monk Council to operate from SV/A. Several weeks later, Frank operated from the island of Kos, which counts as SV5, and it was rumored that Frank had his equipment seized by Greek police for unlicensed operation. After talking to Don Search at ARRL's DXCC desk about the documentation that he received from Frank, it was pointed out to me that in this documentation was a Greek license issued to DL7FT on March 15 which was valid until May 31, 1986. So this claim by Greek amateurs that Frank did not have a license has no foundation, and if the rumor of Frank having his equipment impounded was true, again it was not due to an improper license.

At the time this column is being written the documentation sent to the ARRL on the Mt. Athos operations had not been translated and no decision as to the acceptance of the operation has been made. It is your editor's personal opinion that if the operation is accepted, the Greek amateur community will cry foul play.

The CQ Magazine's DX HALL OF FAME has inducted two new members: Jim Smith, VK9NS, and Baldur Drobnica, DJ6SL. Both of these DXers have provided the DXer with a new one over the past twenty years. Jim operated from such spots as VR4, C21, T3Ø, VK9Y, VK/HI, 5W1, and others. Probably the operation that Jim received the most publicity on was the VK0 Heard Island expedition in 1983. Baldur's list of operations has also been equally impressive, but from a different part of the world. He has been on 30 DXpeditions from 20 DXCC countries: 9G1, SV/A, 5X, T7, and others. Baldur was a member of that ill-fated Spratley Island expedition several years ago in which two amateurs lost their lives and almost claimed the life of Baldur himself. Congratulations to both.

The year of 1987 will mark the 50th anniversary of DXCC and the ARRL is wondering if some sort of celebration should commemorate the event. One idea was to issue an unnumbered DXCC certificate for 100 countries worked in 1987. If you have any other ideas, drop a letter to the ARRL.

In a recent article published in the DX column of CQ Magazine listing the top ten countries by amateur population, the number 3 spot surprised your editor. They are: JA, W, PY, DL, G, UA, LU, I, EA, and VE.

The controversy of whether 4U1VIC should obtain separate DXCC status continues to pop up. It is my personal opinion that they should be granted "new country" status. For the ARRL to permit 4U1UN country status and not 4U1VIC was totally unfair. The filing for separate country status was submitted well in advance of the time that new country status rules were revised, and to disallow the application on the grounds of revised rules was unfounded. Let's be fair- 4U1UN and 4U1VIC or neither.

Amateurs have always been plagued with problems in QSLing to foreign countries. Sometimes the letters have to be sent via registered mail, which is very costly. The recent CE0AA operation with all its mail problems sometimes became very hard to believe that any country could have that much mail fraud. But while reading a recent article in Linn's Stamp News (which follows below), it may add some credibility to the CE's claim, "We didn't receive your card."

India seems to be suffering from a widespread plaque of undelivered mail. Newspaper articles from four different Indian cities from September 1985 through April 1986 report stolen mail bags, mail bags intentionally thrown in garbage dumps, packets of letters dumped in an open area rather than delivered door to door and mail thrown into a flowing drain. The stories come from Chandigarh, New Delhi, Ludhiana, and Panchkual. In one Chandigarh neighborhood, residents found undelivered mail up to nine months old dumped in a gully. Even registered and insured articles are being pilfered. This is not an entire article, but was condensed to the important points. One must understand that in certain countries if a postal worker knows that letters being delivered to a certain amateur contains "Green Stamps" in them, he can make a small fortune. In some areas $20 American money is sometimes more than a month's salary. This aspect coupled with the fact that the chances of being prosecuted for the crime are virtually nil, makes mail theft a very lucrative business. The country of Chad, so far, has solved this problem - they have no mail service, all mail is returned to sender.

FOØXX, Clipperton Island

The 1986 Clipperton crew finally landed Tuesday, May 6, after a frustrating day circling the island, looking for a break in the surf.

Unfortunately the ionosphere did not cooperate with the DXpedition, as a major solar storm wiped out HF propagation, with A indices above 100, and K of 8. As the bands cleared, the crew valiantly tried to call "EU onl," but were frequently frustrated by lack of propagation to Europe. East coast monitors reported many Europeans calling FOØXX, but few getting through. Most stateside stations were pretty good about standing by to allow European contacts, but given the propagation, most of FOØXX QSOs were with US DXers. QSL via Yasme.

The DXpeditioners packed up and left the island by Sunday, May 11. Bob Vallio, W6RGG remarked from the boat ROYAL POLARIS the he is once again talking to his fellow operators, once they showered!

DXpeditions scheduled for the month of July are: 4X-SU-JY by KA2HTV--June 15 to July 23, PYØT by PY1BVY--early July 9H3DX by DF2UU--from July 11-31. FP by K1RH on July 11 to 22.

3CØ, Pagalu Island

also formerly known as Annobon Island was to activated by TR8SA and five other TR8 operators assisted by INDEXA from June 15 to July 5. Two light aircraft to be used for transportation of operators and a plenty of gear.

6F and XE86, Mexico

these prefixes were used in celebration of the Mexico Soccer World Cup Games.

6W1NX, Senegal

will be activated by TR8OIT. QSL via JA1LFR.

9H3DX, Malta

DF2UU will be on from Malta July 11 - 31, concentrating on low bands. QSL to DF2UU.

A51PN, Bhutan

says that he is no longer active. VQ9QM has worked some other A51 stations.

AH2BE

will be assigned to HL land for one year starting in August.

C21RK, Nauru

is active on 160 with 40 Watts and a dipole. He will make skeds for 160 meters and could be found on 3794.

DL7AH/KH9, Wake Isl.
will be active from for the year.

EU2, USSR
All those prefixes emanating from the USSR in mid-May were in celebration of the 41st Anniversary of the end of World War II. (e.g. EU2, ER3, EV7, etc.)

FO0GJ, Tetiaroa Island
is listed in the Callbook as Martin Brandeaux which translates in English to actor Marlon Brando. Chasing famous hams? There is another one for your collection.

FT8YA, Antarctica
Opr. Maurice, is very active on 10.103 and 7020 at 0500Z. He states that this time of the year twenty meters is dead for days at a time. If you work Maurice QSL via FE6DZU.

JD, Minami Torishima
Rick, NJ7D left on June 20 for a one year tour of duty with the US Coast Guard on Minami Torishima - Marcus Island. He has applied for a reciprocal license with the hope of receiving a distinct callsign. He plans to activate 160 - 10 meters SSB/CW, but will also try some RTTY, satellite and VHF work. QSL via NG7X

KD2HE/VP9, Bermuda
operated by Victor, KD2HE, during the CQ WPC CW contest. QSL to his CB address.

KG4XO, Guantanamo Bay
is now on the air at the start of a two year tour of duty and promises some 160 m activity. QSL via KG4 Bureau, Box 73, FPO NY 09593

LA9PX expedition
will be activating some of the Norwegian Islands this summer for those of you who chase the IOTA award.

LU8DPM, Argentina
Mario reports that he is a QSL manager for the following stations: CE8ABF, CE3DYP, CE3FIP, CE5SG, CE6EDZ, CE6GEO, CE8EMM, CE1FGT, CE3EEO, CE4GTA, CE3FTV, CE5BTS, LU8FEU, LU2E, CX2DC, ZP5JCY, ZP5JCZ, ZP5LHY, ZP5LOY, ZPØJCY, C3ØLCK, CE6CEU, CE7DOM, etc.

OHØ, Market Reef
will be assaulted by operators of "OH DX Ring" from July 8 - 15. The callsign to be used is OHØMD/OHØ and QSL via OH2BH.

TP2CE, Council of Europe
was to be on from June 27 - 29. Operators F6EYS, F6FQK and F8RU are hoping to make the Council of Europe count as a new DXCC country.

UAØKBD, Wrangel Island
has been active around 14030 at 0200Z from this controversial island. Wrangel lies north of the Bering Strait, and is claimed by the US, but settled by Russians. Underground oil is the issue, with fishing rights right behind.

WB6FBN
became a silent key on May 2. Bart suffered a massive stroke. He was well known for his acidities with the Brown Sugar Net and as a QSL manager.

DX TRIVIA
For the first correct answer (by postmark date) I will send a copy of the ARRL DXCC Countries record book.
The VU7 prefix is now assigned to India, Laccadive Island, but many years back it was assigned to a different DXCC country. Name that country.

Chuck Taylor, KC7UU

Redwood Empire DX Association, Santa Rosa, CA member Chuck Taylor KC7UU recently returned from Nigeria due to a severe case of malaria. Africa's loss is our gain, as Chuck will be spending most of his time in this part of the world from now on. Chuck shared some of his experiences at the REDXA meeting.
Chuck described some of the living conditions and problems with radio in Africa, including the observation that when personal survival is at stake, hobbies such as ham radio are not well appreciated. Nevertheless, Chuck managed to sneak in about 164,000 QSOs during his three years in Nigerian. Most of his operations were from 5N6, on a 5300 foot plateau with two 100 foot towers and monobanders. Good to have you back, Chuck! (REDXA)

NCDXF ELECTS NEW OFFICERS
The Board of Trustees of the Northern California DX Foundation announces that Bob Ferrero, W6RJ, has been elected as president.
Bob replaces Jack Troster, W6ISQ, who recently resigned after 15 years as Foundation Chairman. In recognition of Jack's outstanding contributions to NCDXF over the years, the Board of Trustees has elected him Trustee Emeritus. W6ISQ will continue to act as NCDXF Advisor to the Foundation's Beacon Network operating world wide on 14,100 kHz.
Eric Edberg, W6DU was elected trustee of the NCDXF.

Congrats K3ZO!

Fred Laun, K3ZO got lucky twice. On his way to Thailand where he was getting married, he stopped at the Visalia DX convention and won the major prize-Henry amplifier. Congratulations Fred and may his new bride have understanding for all those amplifiers and what goes with them!
After Fred's return from Thailand he told the PVRC meeting about the situation in Southeast Asia and Thailand. HS0A station will be active in all contests, and soon many more stations should be on the air if all goes well.

ALL ASIAN DX CONTEST
phone part was held on June 21 - 22 and not not June 14 - 15 as informed widely. Make notes on your calendar for the next year. (We and W1WY had wrong too, sorry!)
The CW portion of CQ AA contest is on August 23 - 24, 1986.

TOKYO HAM FAIR '86
is held this year on August 22 - 23-24 at Harumi, together with TOKYO DX CONVENTION.

INSIDE DX weekly DX bulletin published by N2AU. Write for your sample copy and rates.
436 N Geneva St., Ithaca, NY 14850

AFRICAN NOTES

Sam Ford, ZS6BRZ

For the CQ WPX Contest I had decided on going to BOTSWANA and had planned on leaving Johannesburg on Wednesday 26 March so I could devote more time to preparing the antennas. As luck would have it OM Graham, 3D6BQ said at the last minute that he was unable to join me and I had relied on him to bring the Hy-Gain TH5-DX Antenna along. The antenna had been left in 3D6 country on a mountain since the CQ WW DX Contest in October last year. Last minute arrangements had a road transport bring the antenna up to Johannesburg on Wednesday night and I left in the morning arriving in the Capital city of Gaborones around 1300 local time.
After having had a bite to eat I commenced assembly of the TH5-DX. To my horror I found that the boom had been severely damaged two feet from the end and the element-to-boom clamp was badly knocked out of shape. Fortunately I had brought along a section of aluminum tubing for the rotator mast support and I cut a piece off this and had it joined with a clamp which I had to fetch from my host Reg Loo, who owns a hardware store. Whilst I was in town I collected my license from the Telecomm authorities. The call was to be A25/ZS6BRZ. Returning to my host's QTH from where I would be operating, I was given a help who assisted in cutting the damaged portion of the boom and who hammered the element-to-boom clamp more or less back to shape. While this was being done, I decided it be wise to re-measure all the elements and just as well...the driven element had a break on the one side very close to the 15 m trap. I fabricated a length of narrow tubing from a 2 m collinear antenna that was lying in the back of the station wagon, and with a short solid rod joined the two sections with small hose clamps. By nightfall all the elements were ready for the final assembly.
Early the next morning my host sent an extendable 10 m ladder to help with the hoisting of the antenna to the top of the floodlight post of a tennis court. With the floodlight lamp removed from the pole I found that the neck of the pole was too short to take the lower mast support of the rotator. Luckily within the confines of my host's yard (nothing gets thrown away in Botswana unless really useless, as replacement is too hard to come by, so I am told!) I found a small diameter pole which could be clamped by the lower mast support but had to have a locking collar so as not to fall into the pole and be forever irretrievable. This, however, introduced a wobble, so that regardless how the rotator got set up for north, it would swing back west again!! With the ladder fully extended and leaning against the floodlight support, it was difficult for two persons to hoist the antenna to the top of the rotator, so further help had to be called in. The antenna was raised with guy ropes but in raising, the driven element got caught in the tennis court perimeter fencing and also against branches of a tree and the repair work was all for nought.
My next job was to install the two 18AVT verticals to work as phased-verticals on 80 m. Once again, the lengths were carefully measured out and assembled.

One vertical was bound to the tennis court fence and the other was tied to a bush growing in the garden as there were no other poles available for mounting. The phasing harness was cut from 75Ω coax and dimensions were according to Hy-Gain's recommendations. The VSWR was 1.5:1 at 3.795 without further cutting!! On 160 m I installed a sloper with the floodlight pole as high support. My host had other guests for dinner that evening and I must confess that I must have been highly unsociable that evening as I rushed through dinner and carried on with my work. By 2030Z I still had not put up a 40 m antenna but I was so bushed that I simply took a bath and went off to sleep hoping to be up at midnight...

I am also ashamed to confess that I only awoke at 0230Z to start the contest. The only band I could work then was 80 m (160 m was not open yet) but the conditions were such that I could not break through although many stations were heard. I have since concluded that either the ground mounting was inadequate or else there were insufficient ground radials. When 160 m opened I managed to snare only two ZS's with indications that there must have been some Stateside stations calling which I just could not hear distinctly.

A general report on the conditions of the band seems to be in order here. On both days there were openings on 10 m but these were brief and had to be watched - on each occasion I caught the tail-end with most of the signals being quite weak except for one or two SV's who were 5x5. 15 m proved to be my most successful band with most of my multipliers and runners being picked up here. There were good openings to JA, U-s', DL's Italy and Yugoslavia. On the other hand, 20 m was quite a disappointment. Where normally it was the DXer's Band and the Contester's salvation if the other bands failed 20 m was watery and not up to expectation. What I did hear though, was that some U-stations were well into the two thousand mark while I was still in the lower hundreds! There must have been very good propagation between East and West but there was definitely very little crossing the equator. Both A22BW and VQ3CE complained that they were not faring too well either. On late Saturday morning, there seemed to be a lull in the contest (YES! The bands seemed to have gone QRT for some 2-1/2 hours!) I erected a very rudimentary delta loop between the floodlight pole and a telescopic Hirschmann mast with the feed-point about four feet above ground. I managed to pull in some Japanese and Russian stations later that evening. On both days there was a distinctive absence of VE's and W's on the 40 m and 80 m - it was as if they deliberately avoided those bands!! Perhaps Cycle 21 was affecting even the lower bands...maybe I shoulda stayed at home..! Nothing can be more morale devastation than to hear a European station (a YU) running in the three thousand QSO range while I was still in the lower 700's!

I am sorry that is all I have to report this time. Hopefully within the next few weeks I will be able to let you have a picture profile on OM Greg Smith, ZS6BPL, who always features high in the multi-single scores for South Africa in the CQ WW Contests.

Very best 73 and hope to catch you on the IRSA net...when the bands are open between us (ZS6BRZ)

The artificial forest of Rev. Paul Bittner, WØAIH/9 twenty four towers

QSL ROUTES

AH6GJ	-WA9AEA	IMØJOO	-ISØWON	V3ØDX	-N6ADI
AH6GQ	-WA9AEA	IR8CS	-I8LWL	V44KA	-K5RGE
AH9AC	-W1ISD	JD1/JA1YWX	-JA1YWX	V4/K2LE	-K2LE
AZ1A	-LU8DTQ	JD1/JA1ZLO	-JA1YWX	V4/K4FW	-K4FW
AZ1ARU/8	-LU4HH	JY8GG	-WA6POZ	V85DO	-G3KFN
AZ8DQ	-LU8DQ	J34WG	-W5PWG	XE86NJ	-XE1NJ
A24AS	-AK1E	J88/K6HCJ	-K6HCJ	XX9CW	-DK7PE
A35DG	-SM6FYG	KC6DM	-KB5FU	YZ7AA	-YU7MAB
A35WZ	-NE7W	KC6HM	-KB5FU	ZF2JA	-WBØMWA
A71AC	-N2BIS	KP2/OA1A	-K5TVC	ZF2JB	-WBØDNA
A71BK	-N5GAP	KX6AX	-KX6BU	ZF9SV	-VE7SV
CP8/DL3NAZ	-CP8AL	LF2J	-LA7JO	ZK1CQ	-ZL1AMO
CQ5TM	-CT1TM	LU2BC	-SMØKCR	ZK1XO	-OE3KOA
CQØNH	-CT4NH	LY4L	-UA4LM	ZLØAET	-W4IRN
CR8NH	-W3HNK	OY1R	-W2KF	ZLØAHB	-G3VIE
CR8UW	-CT4UW	PI4GN	-PAØGIN	ZS25TUK	-ZS6BCR
CSØAT	-W1JZ	PAØVDV/PJ2	-PAØVDV	ZS4PB	-WA3HUP
CT3/W2ZZ	-W2ZZ	PJ2/W1BIH	-W1AX	ZS5LB	-W2LT
CT4AT	-W1JZ	PAØVDV/PJ7	-PAØVDV	ZV5KT	-PY2KT
CT5AT	-W1JZ	PU5YQM	-PY5BI	ZV8WAS	-PY4AG
C3ØCAJ	-F1DBT	P29JS	-VK9NS	ZZ5IW	-PP5IW
C3ØLDF	-GØAMG	PY1CRP/PQ8	-PY1DFF	Z21EV	-W3HNK
C3ØLDG	-GØAMG	P43A	-N1GL	3AØGB	-W2GBX
C3ØLDM	-DL4BBO	P43DO	-PJ3DO	3X4/LA2EX	-N4CID
C31RV	-OE3GEA	P43SF	-PJ3SF	4K1C	-UA4HCS
C53GD	-K6HCJ	SJ9WL	-SM4FTF	4K1J	-UA1BJ
C56/EA5AL	-EA5EBX	SPØITU	-SP8PLU	5J1LHI	-HK1AMW
C6ABC	-KZ4C	ST2SA	-DJ9ZB	5J1LR	-HK1QQ
C6A/AA4NC	-AA4NC	ST2/ON7IP	-ON7IP	5T5SR	-N4GNR
C6A/N6EK	-N6EK	SVØEK	-N1DSC	5W1DZ	-WB2LVB
C9/SM4PDD	-SM4PDD	TG9VT	-W3HNK	6F2AQ	-XE2AQ
DPØGVN	-DJ4SO	TU2NG	-N5GAP	6F2FL	-XE2FL
DU2/N4KCL	-W3HNK	TV6KAR	-F6GLL	6F2MX	-K6VNX
DX9C	-DU9RG	UA1POL	-UZ1OWA	6W6NJ	-N5GAP
EKØGC	_RW3DR	VE8YQ	-WA9AEA	7J1AAA	-JA1XGI
EL8B	-KB1CH	VG2PJ	-VE2EVO	7J3AAB	-JM3LYS
EO2QGL	-UQ1GWF	VK3MO	-WA9BXB	7J6AAB	-KA6ZYF
ER3A	-UZ3AZO	VK4KA	-KA5RGE	7J6CAB	-JA BURO
EU3P	-UP1BWW	VK9ZG	-VK6YL	8P9AK	-AK6T
FF3TV	-F6BEE	VP2M/K1CLN	-K1CLN	8P9GI	-KA6V
FG/K2BS/FS	-W2GHK	VP2M/KA1NTM	-K1CLN	8Q7CG	-I5JHW
FG/W2KN/FS	-W2KN	VP2M/VE3HO	-VE3EUP	9G2XX	-AK3F
FOØAS	-N5DD	VP2M/VY1CC	-VY1CC	9J2BH	-G3ZXY
FOØWVR	-N6VR	VP2VAA	-K8OHC	9L1SM	-KB9N
FOØXX	-YASME	VP5/KC2RS	-KC2RS	9M2HB	-N4FFN
HC1BW	-KT1N	VP8PTG	-G4PTG	9N1NR	-W4SKE
HC1OT	-W2KF	VP8WTW	-G4ZCN	9Q5CT	-AK1E
HC1/K8PYD	-K8PYD	VQ9EE	-W7LAN	9Q5/DK8ZD	-DK8ZD
HC5KA	-KT1N	VR6YL	-W6HS	9X5VA	-W2PPG
HFØPOL	-SP5PWK	VS6TW	-G4IUF	9Y4E	-WA4WTG
HL1AQ	-JA2AUI	VU2ABC	-K3ZJ	9Y4F	-W3HNK
HR/WB8VMN	-K8CC	VU2ZAP	-W3HNK	9Y4VE	-VE3GCO
HU1DX	-WAØJYJ	V3DX	-N6ADI		
HZ1HZ	-N7RO	V3ØAA	-N6ADI		

160 m Bulletin

Founder -
Stew Perry, W1BB

Top Band News Americas

Dennis Peterson, N7CKD

4248 A Street SE, Sp. #609, Auburn, WA 98002 Tel. (206) 833-7243

Dayton "Hamvention 1986"

I would have liked very much to have written this article on Dayton sooner however, due to the time factor involved; that was almost an impossibility for me. Anyway, here we are better than 2 months past this great affair; and already I am looking forward to returning again next year. I want to thank all of you who found the time to come say hello to me and let me know what you think of the top-band news section of the RADIOSPORTING Magazine. Your words of encouragement and suggestions have been considered and we are hopefully going to make every attempt to put many of them to use to provide you with even a better top-band information section.

I don't think that I have ever met a finer group of Amateurs anywhere than what I did there in Dayton. I would personally like to extend my thanks and appreciation to the Dayton Amateur Radio Association and all of their staff for an excellent weekend and a well organized affair, in spite of a couple of minor accidents. But what the heck, it wouldn't be a complete weekend without something going wrong somewhere. That sort of spices things up and lets everyone know that we are all human.

The Dayton Hamvention has been a dream of mine for almost the length of my amateur career (10) years. To be able to communicate over long distances via Amateur Radio or correspond through the mail is indeed a great achievement. But to meet some of these operators face to face makes it even more exciting than to just exchange a quick signal report and away you go. With the hustle and bustle of the 3 day affair, one doesn't have a whole lot of time to just sit and chat with any particular operator or famous DXer; he has to try and use every minute to its fullest advantage and catch as many an operator that his time will permit. Of course everyone knows that's just what the other fellows/gals are doing as well. That's what makes the whole weekend adventure much like operating on Top-Band, there's such a challenge involved and you just can't stay away from it. Maybe I shouldn't take the plural side of things, but I feel that most operators feel the same way as I do about our great 160 meter band. When you are confronted with a challenge such as this you can't but help try and overcome some of the many obstacles which lie directly in its path. I think we do it for the sure pleasure of saying we either gave it our best in an effort to overcome them; or if we were able to master and overtake the near impossible, it is a relaxing and fulfilling feeling to be able to say that you conquered one of the most devastating ordeals amateur radio has to offer. If you've never been on top-band, then you don't know what you are missing. Don't be mislead that getting there or even staying on the band once you are there is going to be a bed of Roses, because there are probably more thorns in the bush than there are buds or petals. At any rate those who attended this years 1986 Dayton affair and previous years as well, can attest to what I am trying to say; and I hope to be able to get back there again and again. It's very tough to try and explain in words what Dayton is.

I guess you could say that I was fortunate enough to have a room located near the Kansas City DX Club Suite (just across the hall) so I didn't have far to go to crash for the evening/morning. I do have to agree with many of the operators whom have been to Dayton many times, and that is this "no matter how hard you try it is almost impossible to see everything there is to see in the three day period". I tried, and found myself near exhaustion because of being on the run constantly. I finally had to give up, as I was not going to accomplish the impossible.

During the three days of Dayton, I was able to get in a few leisure chats with Riki, 4X4NJ; Dave, G3SZA; and Bob, HZ1AB. They all seemed to mention the same old topic. "Knowing when a sunrise and sunset occurs for any particular part of country. It is of the utmost importance to follow these sunrise/sunset schedules diligently if one is to expect a QSO with a European DX Station. The biggest problem with some of the South Pacific DXers is that many an operator when he hears them on 40 or 75/80 meters, he immediately asks for a QSY to 160 meters. Sometimes this works and sometimes not; about the best thing to do is to arrange a sked at or near the sunrise time of the station who is wanting to work that particular DX station. We too many times have heard that many a DX contact has been lost because the DX station has come down to 160 and listened, only to find himself in the midst of static, QRN and an endless sea of Silence. The cause is plain and simple to see. A case of not understanding the sunrise and sunset times. It is very important to sked a QSO within approximately 30 to 45 minutes before sunrise and to within 20 to 30 minutes after. These figures are not always accurate, but they do serve as a simple guideline for one who has high hopes of working that elusive one.

One other factor to consider, at least from a West Coast Operator's point of view is this suggestion made by several of our European operators who desire QSO's with W6's & W7's: "It would be highly recommended if the West Coast could establish a DX Window of their own for working Europeans (West Coast transmit only). This suggestion would help to eliminate the troublesome QRM curtain which hangs over W6-W7 stations trying to cut through the Midwestern and East Coast QRM with hopes of gaining recognition that we are existent on the band and hearing the European Stations. [Let's be honest fellows, when you are hearing them we mean by good signals and not maybe I think I can catch the numbers. Many operators agree that we really don't need any more 20 meter perpetrators invading the band than what is already existent. It is rather annoying to sit aback and listen to stations passing 2 by 2 or --buckshot or rifleshot; or even 3 by 3 * triplets triplets.] "How do you hear a 2 by 2 signal?" I've never heard, that's why I ask.

At the present time, there isn't or for that matter hasn't been much activity on top-band due to the changing equinox patterns and sunspot activity. Therefore, this months column will be somewhat short and we will try to cover more in the upcoming months, providing of course that I get some of the much asked for material from preceding issues of the magazine. Your cooperation is much needed to continue this column and to make it a highly reputable source of information for top band operators of all phases. I would very much like to hear from those of you wishing to share your viewpoints as far as DXing the top band and how to get around some of the various stumbling blocks that many of us are faced with. These comments, ideas and remarks will be published in the next issue that I will be writing for. If you wish not to have your comments published, please indicate so in your correspondence to me and I will gladly hold it back.

World Top-Band
Frequency Allocations Listing

I have just purchased a rather large assortment of paper which has been discontinued by the manufacturer of this particular brand, and therefore I am able to decrease the price of this listing. This listing once again is by far one of the most comprehensive and complete of its kind, in listing all of the top 316 available countries with respect to their frequency allocations on 160 meters. This includes both CW and SSB. As many of you know by now, we also can include SSTV and RTTY; however, at this time I do not have enough information compiled to include these modes as well. Currently, out of the possible 316 countries there are over 276 entries (countries) with listing that particular country's frequency allocations on CW and SSB. The countries with a blank line indicates either information is incomplete for the listing or possibly no allocation has been granted for that country.

The previous cost of this listing was $5.50 for North American Amateurs and $7.50 all others outside of the North American Continent. The new price effective immediately is as follows: USA, USA Possessions, Canada, and Mexico $3.50; South America, Europe, Asia, Africa, Oceania $5.00. These above quoted prices include the special mailer and mailed either FIRST CLASS or AIR MAIL, whatever the case may be. This is between 60 and 66 percent reduction of the original price. Some operators felt that the price was somewhat steep. Due to the cost of postage for overseas mailing and some of the laws and restrictions governing mail going across various borders, different methods have to be contended with and in order to preserve the listing, a mailer is used to avoid possible damage to the material and in going this route, it consequently adds weight to the total package and therefore justifies the postage costs. Also, there is over 4 years of research and costly letter writing to the various countries radio leagues, clubs and government officials. If anyone is interested in this listing with its "NEW PRICES NOW IN EFFECT" just send check, money order or international postal money order IN US FUNDS ONLY to
N7CKD Dennis G. Peterson; 4248 A Street SE; Space 609; Auburn, Washington 98002.

TOP BAND DXING

Riki Kline, 4X4NJ

When planning your next DXpedition, or if we have not yet QSOd, please keep the following points in mind:

1. Sunrise & Sunset times are several hours different in the Middle East than in Europe - here are our times:

Date	Rise	Set
Jan 1	0443Z	1447Z
Jan 15	0441	1457
Feb 1	0431	1509
Feb 15	0422	1521
Mar 1	0409	1534
Mar 15	0354	1544
Apr 1	0334	1600
Apr 15	0318	1608
May 1	0304	1620
May 15	0249	1633
Jun 1	0241	1642
Jun 15	0239	1647
Jul 1	0241	1649
Jul 15	0250	1645
Aug 1	0300	1633
Aug 15	0311	1622
Sep 1	0323	1603
Sep 15	0333	1548
Oct 1	0345	1530
Oct 15	0355	1515
Nov 1	0409	1458
Nov 15	0420	1447
Dec 1	0432	1442
Dec 15	0438	1442

2. The peak associated with the Eastern sunrise is usually more pronounced than the peak associated with the Western sunset according to personal observations from this QTH (Israel). The Eastern sunrise peak may occur at two distinctly different times. Most often it is at 20 minutes before sunrise to 10 minutes after. However, it is quite often at 1 1/2 to 2 hours before the actual sunrise. Usually when the peak is at the earlier period, the band is not very good around the actual sunrise. The exception, of course, is under extremely good conditions when the band peaks several hours before sunrise and stays open for 30 or 40 minutes after sunrise (for long haul DX).

3. The peak associated with the Western sunset is noticeable from about 10 minutes before sunset to 20 minutes afterwards.

4. Of course, an absolute must is that darkness cover the path between us. Winter is best for Northern hemisphere QSOs. Spring and autumn are best for QSOs between Northern and Southern hemispheres.

5. For North-South Paths (primarily into Africa), a time which places local midnight near the midpoint of the path is best.

6. Sometimes skewed paths are taking place. Also, at sunrise and sunset peaks, a higher than usual radiation and reception angle is often noticed. The point here is that it is important to try different receiving antennas for serious work. A low dipole, even a short one that is crooked, makes a good general purpose, low-noise receiving antenna and often is excellent during the high-angle periods mentioned.

7. My station here consists of a highly modified Drake R4C receiver with many homebrew add-on devices. The transmitter is a Drake T4XC. The antenna is a "4X Array" described in my February 1985 QST article. In addition, on receive, I have a 700' Beverage to North America and the Caribbean. There is also a low-dipole.
I am QRV for new countries:
Sunday-Thursday 1700-0430.
Friday and Saturday any hour.

8. Remember, 160 meter DX information net meets Saturdays on 14338 kHz at 1400Z. Please pass this information on.
(4X4NJ)

CYØSAB - Sable Island DXpedition crew: l. to r. VE1AIH, VE1YX, AK4L

GUAM ISLAND

Ed Campbell, AH2BE

Guam is a small island. It is only 30 miles long by 12 miles wide. It has a population of about 175,000 people with 20,000 being transient with the military. Also, one-fifth of the population lives on the mainland.

Guam is known as the "hub" of the Pacific. It is a major link to the satellite communications here in the Pacific with a N.A.S.A. Tracking Station here also. Guam is 6,000 miles to los Angeles, 3,644 miles to Honolulu, 3,500 miles to Singapore, 3,000 miles to Manila and 1,550 miles to Tokyo.

Guam has two types of seasons, wet and dry. The wet season being from July to December. Guam's average temperature is 86 degrees at its high with its low being about 75 degrees. The yearly rainfall is about 85 inches. During the rainy season Guam is lush and green.

The highest point on Guam is known as Mt. Lamlam and it is 1,336 feet high and the lowest point being at only 200 feet. At the lowest point, which the Northern part of Guam is located, is a plateau with several undisturbed jungles. It is also at the part of the island that most of the people live. About three fourths. At this point the population density is about 685 people to the square mile. At the north end is Andersen Air Force Base and at the southern end is Apra Harbour and the main Naval Station. Speaking of the southern end, there is a small island known as Cocos Island. It is about 2.8 square miles and is a large tourist attraction with a hotel and sandy beaches. It also has a small Zoo with tropical birds and other wildlife.

Guam is part of a mountain chain that is underwater that comes from Japan. With this it's no wonder of the vast changes here on the island. With its peak of 1,336 feet at Mt. Lamlam and its waterfalls at Talofofo, to its rocky beaches.

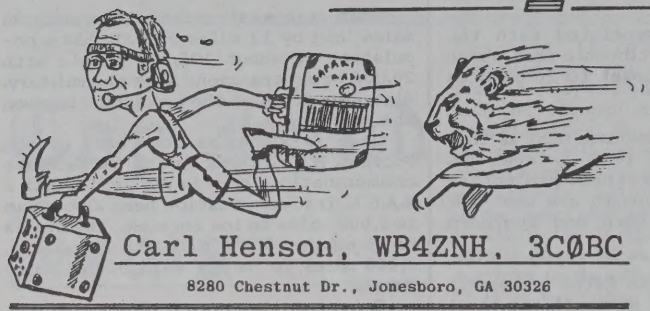
Now to the people of Guam. These proud people of the Pacific are a mixture of Chines, Japanese, Koreans, Filipinos, Micronesians, and of Spanish descent, along with us statesiders. The Guamanian people are known as Chamorros. And the women known as Chamorritas.

After many years of rule by the Spanish, Guam became a Territory after the Spanish American War and the Treaty of Paris, in the year 1898. In 1950 the Chomorro people were given their citizenship by Congress. In 1971, Guam elected its first Governor after many years of them being appointed. And in 1972 Guam elected its first delegate to the U.S. Congress.

Guam is a duty free place for tourist to come and lay on the beach and do some great shopping. With some of the prices being 50% lower than stateside. There are about 100 hams on Guam with many not active. Out of the 100, sixty are in the Marianas Amateur Radio Club (MACR), of which I am the Secretary.

To finish up, the island is a laid back type of place with lots of water sports. Also, lots of good prices for the shopper and pretty decent propagation for the DXer. So, if you get the chance come by and see us.
73, and HAFA ADAI (HAFA A DAY) from the Island of Guam where America days begin. (via DJ9ZB)

DXpeditioning



Carl Henson, WB4ZNH, 3CØBC

8280 Chestnut Dr., Jonesboro, GA 30326

I feel like a traitor, it has been several months since I have contributed anything to Radiosporting. I have some things to write about, but I hardly have any time at all these days.

It came to my attention that it had been nearly 2 years since I passed the FAA exam for my instrument rating and I was still not "up to speed" to take the checkride. Since the written expires after 24 months, I had been studying and flying the different approaches. Then my 20 year old airplane broke. What should have been a week long repair job is starting its eighth week and will take another 2 - 3 weeks before I am satisfied that the old heap is safe to fly again.

Before the trouble, Martha and I flew the old Comanche from Atlanta to San Juan, P.R. One of the highlights of the trip was dinner out one night with 2 premier DXers/Contesters: KP4AM and KP4WI. Wish we had the opportunity to meet more Hams during our brief visit to Puerto Rico.

Many of you are aware that when Martha and I last visited Equatorial Guinea (3C1YL and 3C1BC), we attempted to sow the seeds of Amateur Radio with some local people. The ARRL donated the necessary money and I bought a Ten-Tec Century 22 and accessories for a station which should operate using the callsign 3C1GE (Guinea Equatorial). The U.S. Ambassador kindly consented to assist with the project and the equipment is now in the country and has been sporadically operated. The chief operator, Emilio, wrote me recently requesting some support money to help them rent a place for the club to be located. These should not be very expensive since Equatorial Guinea is one of the poorest countries in the world.

If anyone would like to contribute, I will try my best to insure that the money is actually spent on its intended purpose.

I have given several T-shirts to Emilio for distribution to operators and his CW students. These were left over from the Southeastern DX Club's DXPO ATLANTA. Emilio asked for more if possible since there are several new students. My plan is to create a T-shirt especially for their club and give them as an operating award to each operator who makes 500 contacts or more.

I would like to buy a Hy-Gain Th3-jr. that has BAD traps. I have a new spare set of traps and want to build up a spare DXpedition antenna.

On the subject of DXpeditions, it might be appropriate to discuss HOW to work a DXpedition. Theoretically, it should be easier to work a DXpedition operator from a rare country than a local from a place of equal scarcity. That is not necessarily true. There is a certain frantic nature to many people's operating. If it were announced that Albania was to be activated for only 4 days the pile-ups would be impossible. X number of contacts would be made. If the same operation were announced as a two week operation, but the operation only lasted 4 days, more contacts would be made than the first scenario. Last of all, if NO announcement at all was made, more contacts would be made than either of the other two cases in the same amount of time.

QRM will also be lower. Real DXers don't QRM. Sure, there are always exceptions to ever rule, but for the most part the REAL DXers will be listening when the station comes on, make their contact and be gone before the QRM idiots ever learn about the station. Likewise, by the time the frantic prone operators learn of the operation, that frantic period will be over.

DXpedition operators who announce 6 months ahead and every month until the time for the operation are only making the going hard on themselves. It is also quite noticeable that only a very low percentage of operators that announce so far ahead of time actually show up on the bands. It makes one suspicious that seeing their name and callsign in print is more the motivation by far than a desire to alert the DX community!

DXpedition operators should be easy to work because they should be methodical and should give very consistent signals as to when and where you should call. The really good operators are almost no challenge to work because they are so easy! The good operators end each QSO exactly the same one or two ways. If you can hear the stations being worked as well as the DX station then it is very easy to establish the particular operator's approach to working the pile-up.

Some operators start at one end of the announced listening range and work their way to the other extreme. Some over-run the bounds as I have a tendency to do, while others find a quiet corner and stay there. Still others seem to have no method to their tuning.

Tail-ending is an excellent way to operate, but only if it is done correctly. Done wrong, it is horrible and extremely speed crippling to the DXpedition operator. It the DX station can work another station on exactly the same frequency as the last one, then incredible amounts of time can be saved. On the other hand, if he or she cannot complete the QSO because of pseudo DXers calling on top of the station he/she is trying to work it becomes frustrating and maddening!

The DXpedition operator has to contend with a lot of time consuming conversation which is very difficult to combat. I know that everyone has heard this sort of thing every day on the bands. I made this example up, so please don't think it is aimed at a particular person, because it isn't.

DX station: QRZ?

DXer: WK22AA, WK22AA, WK22AA, WK22AA!

DX station: WK22AA, 5 by 9.

DXer: Oh, great, Carl! Yea, you are also 5 by 9 here on Long Island, New York about 10 miles from Manhattan. The name is Fred, Fox Roger Easy Dog, Fred. Hope you and Martha have a good stay

over there and a safe trip home. Well, you have a lot of people calling you so I won't hold it. 73 and God Bless!

Substitute Chicago, Atlanta, or whichever city and name you care to substitute. It is a big problem. How can we deal with that one? You can't say something like, "You idiot, I know there are lots of people calling me and you just cost me two QSOs!" First of all you can't say nasty things to someone who just wished for you everything you wanted and then invoked God's blessings on you! In fact, you don't want to be nasty at all, DXers just want to have fun.

Try this on the next DX station you work.

DX station: QRZ?

You: WK22AA! (or if heavy pile-up, WK22AA, WK22AA!)

DX station: WK22AA, 5 by 9.

You: WK22AA, also 5 by 9.

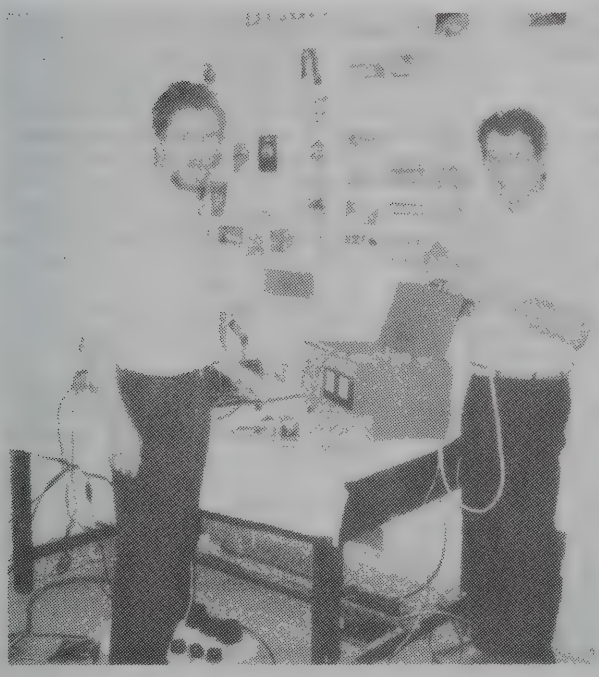
DX station: QSL, QRZ?

Personally, I like to ragchew but when away from home on a DXpedition I want to make as many contacts as possible. I would get laughed out of town if I came back home from Lower Slobovia with only 2000 contacts in two weeks!

Don't misunderstand, if the DX station indicates a desire to get to know you then by all means take advantage of the opportunity to make a new friend. You will be glad you did.

QRZ? Who is calling me? Oh, Martha. Yes, Dear, I'm almost through here. No, I haven't forgotten to do all of those things.

Well, 73 and good DX! (WB4ZNH)



DJ6AJ & DJ4RA setting up BY1QH in 1985.(DJ9ZB)

HAVE YOU HEARD OF GEOMAGNETIC JERKS?

Mary Burnett, VE3AYL

A condensation of an answer to this follows. Was found in an article in "SCATTER" magazine of some time ago and written by Bin A. Round of the Southern Counties Amateur Teleprinter Society.

"In all the thousands of years that people have lived in the aura of the earth's magnetic field, no one has discovered why it exists. People have used the geomagnetic field for centuries to navigate the seas, more recently to unravel the evolution of the planet, without even understanding the exact mechanics of how the field itself is created. Some think that the iron core of the earth has something to with the magnetic field. However, we know that the center of the earth is hot, and we know that one of the better ways of destroying a magnet is to heat it up. The alignment of the electron orbits in the iron collapse. The fellows that study magnetics are called "plaeomagnetists," whereas those who are interested in the daily magnetic flux changes are called "hams."

The first magnetic jerk was first reported in 1978 by a group of researchers at the University of Paris, France. Vincent Courtillot, Joel Ducriux and Jean-Louis Le Mouel discovered that nine years earlier there had been a rapid change or jerk in the acceleration of the secular variation of the magnetic field in France. This change was evident primarily in the westward drift, which had been slowing down until 1969, when over the course of a year or so it began to speed up. So the theory goes that maybe the reason for the magnetic jerk is because of something being generated in the core of the earth.

There is another kind of "magnetic jerk" they did not mention. When there is a sun flare (sunspot), if it is very large it causes the sun to emit alpha particles. Alpha particles do not travel very fast so about 8 hours after a good-sized flare they hit our ionosphere and cause ionization. This is what hams look for to enhance skip in the Heavyside layer. When the flare first occurs, x-rays reach us in just minutes and collapse the ionization so skip is not good (condx lousy). It is after the alpha particles ionized the stratosphere, it caused the magnetic flux to change and also made a geomagnetic jerk.

Stuart Malin of National Maritime Museum in London, England and Barbara Hodder of the Institute of Geological Sciences in Edinburgh, Scotland examined the data of 83 observatories. Using a mathematical method called spherical harmonics they separated the internal and external contribution to the field and concluded that most of the jerk was created within the earth. Spherical harmonics was developed in the 1800's by the German mathematician Karl Friedrich Sauss who showed that 95% of the geomagnetic field originates within the earth's interior. Have you ever seen a red hot magnet? Perhaps changes in the sun's radiation or near misses from comets, asteroids or a myriad of other things have shifted the earth's magnetic field. Does the moon have something to do with the magnetic flux? It does have an eleven year orbit cycle." (CARTG)

IF YOU RECEIVED RADIOSPORTING
AND ARE NOT A SUBSCRIBER IT WAS NO ACCIDENT!
PLEASE CONSIDER IT AN INVITATION TO JOIN

Third-Layer QRPer
Calling From The Far North

WORKING FOØXX THE EUROPEAN WAY

Martti Laine, OH2BH & Jarmo Jaakola, OH2BN

(This story is written in the style of our beloved Hugh Cassidy, WA6AUD - former NCDXF Director - as a sort of tribute to that great story-teller - OH2BH & OH2BN)

It all happened in a country freezing in the far north of Europe where Santa Claus has his official residence and his busy workshop, in whose parts where aurora borealis frequently kills radio propagation. It was a star-bright March night when the Local QRPer came panting up the hill to share some of his thoughts with the Old Timer, things of substantial significance relating mainly to DX.

"Listen," he started out in his original fashion, leaning close to nail down the Old Timer's attention, "I've heard The Foundation is putting some people on Clipperton next week. What do you make of that? Wonder what the propagation is going to be like from these northern latitudes? Are you sure they will be listening out for us third-layer QRPs from the top of the world? Do you think they will realize that it is the same mileage from here to Rome as it is from New York to San Francisco? Are you sure they're going to stick to their announced operating frequencies so we'll be able to find them any time? Just how are they planning to tackle the European pileups?"

This was a worried DXer for sure, standing there using his hands to shape his words. But what could one say? There was a brief moment of thought when things were being sorted out. The Old Timer slowly stood up, squaring his shoulders and extending his frame to its fullest height and, his tones deep and demanding authority, launched himself into this one-way conversation:

"It is only every second year or so The Foundation will commit all its money to a major DXpedition, so it'd better be successful," the Old Timer started, fixing that beady eye on the inquisitive QRP type, one who was always willing to get an insight into the Mysteries of the Ages and the Eternal Enigmas. 'This time they have chosen the best operators along the Coast, including the likes of W6OAT, W6RGG and N7NG, a DX stalwart who always scores well in the Fresno copying contest. Even Pat, WA7NIN is there with a lot of muscle. And, think about Hall of Famer DJ9ZB and all that."

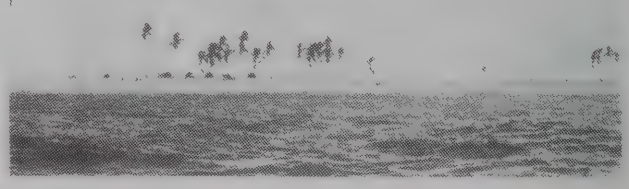
There was again a short moment of silence - one had to wait to see how the Local was taking this. Soon the monologue continued: "Surely there are some odd ones, too, but they'll be on hand to fix chow for the real ones. Why do you worry? How many bands do you need?", the Old Timer asked reassuringly. "Just relax and you'll see that at the end of play, they will be yelling CQ because this is what always happens with major DXpeditions."

Those who have been around the track for a couple of decades know - as do all the Deserving ones - that this is the truth and nothing but the truth. Somewhere along the line all DXers realize that DX is a movable feast, that the thrill and the sense of achievement usually comes from that urge to climb what may initially seem an insurmountable mountain, to clear yet another seemingly immovable obstacle, to get what you haven't got.

Quietly the QRPer mulled this over, the message from the Old Timer being slowly driven home. Finally, the Local - already advanced in years but still short on country counters - moved to make his closing comment. "There are ninety-five of us QRPers here in these northern parts, all above the 300-plus mark with our confirmed totals", he remarked positively. "But, by Golly, DX windows onto the coast of Mexico ... they are mighty narrow ... so, to be on the safe side, I have reported feeling some mysterious pain in my stomach and signed up for a ten-day sick leave. Just to be on the ... you know what I mean." There was no question that this DX type had come to talk and talk he did: "Are you absolutely sure they will put W6OAT to work Europe and let their European operators work the U.S., because Stateside stations must be booming in there and are easy to work, just like the Italians are big and strong here in the north? The European operators are hailing from the southern end anyway and if they are to operate the short windows, they many only work their relatives back home, right? Are you sure they will recognize us third-layer QRPers?"

The hour was late, the night looked right for some low band DX but the Local was just getting started with his multitude of questions. Suddenly, he grabbed his cap, totally immersed in his worries, and away he went down the hill. The Old Timer, never eager to bail out of an interesting conversation, was left wondering about the causes of such an abrupt change in the course of action.

Two days later, the QRPer's family was seen heading down south to visit with relatives, complaining that Joe was getting aggressive - his stomach was in pain and he wasn't getting any sleep but just kept talking about rough seas and no landing. He also grumbled about The Foundation not being able to inform him of what was going on. "Better go to see the relatives for the next few weeks," they said and left.



FOØXX tent city under the palm trees.

It was late on the night of April 6 when the telephone rang - in fact, it was 3 a.m. ... with the QRPer on the line! He was standing at attention while talking, the reason for his call at this unearthly hour being that he wanted to express his congratulations The Foundation for putting the group on Clipperton. "They are On Now!" he shouted on the phone. "Are you sure they will be listening for us shortly?" the QRP type asked confidently. "Five days left of my sick leave."

In anticipation of the Great Days of DX awaiting all the Deserving, the Old Timer recalled briefly what he had often told this budding DXer and others coming his way in search of knowledge, that if you have to ask questions, you probably will not understand the answers. But if you are a Believer, you will not need to ask questions. All true-blue DXers are Believers, he would often say.

Back from his recollections, the Old Timer switched on his old faithful Signal-One and swung around his impressive KLM hardware Clipperton way. And, Son of a Gun! There they were on 7 MHz with a good S2 signal and running the U.S. like popcorn. Nothing else was happening on the band - just a huge pack of callers there. It sounded like a million excited people rushing around in a desperate effort to make their way into a crowded subway train.

"When are they going to listen for us third- layer Europeans?", the QRPer demanded on the local 2 meter DX channel - the break of dawn was just around the corner. His digital desktop clock was displaying 0450Z when the QRXed the U.S. and started calling "EU EU DE FOØXX KN". Hell broke loose, it was sheer chaos with Europeans - first, second, third-layer DXers all over the band.

In the midst of the initial fracas, it was IT9VDQ who made it on ... zero beat! Heck, he even got an LZ friend through and himself made it five times, including with his late god-father's call. And all on zero beat!!! For five hectic minutes, the local 2 meter channel was out of order. "Was it Rusty who did that?", the QRPer screamed madly when the 2 meter box became alive again. "Working split to knock off U.S. QSO's, but zero beating for Europe?"

It seemed obvious to the frenetic QRPer that they did not realize the QRM generated by hordes of Europeans. When the dust had settled on 2 meters, the QRP type was heard remarking with a sigh of resignation: "I didn't call ... I'm just a third- layer station ... it ain't gonna work if they zero beat. There are always winners and losers. But hey guys, just relax ... 14 MHz will change everything tomorrow!"

The Old Timer was properly sympathetic for he had also known the lonely days and nights of frustrated DXing. The clock struck 1415Z when FOØXX became faintly audible down in the village and even the Old Timer was alert, fresh from his beauty sleep, supremely confident that this was the day when he would lead the Deserving through. It was supposed to be a BIG DAY for the folks in the village. The Clipperton crew had now fired up on 14002 kHz. Tuning attentively up and down the band, the Old Timer observed that they were not sticking to the announced frequency but what the heck, they were going fast with the U.S., listening up the band and the signal was only S1.

Then came the moment of fulfillment which sent everyone's heart thumping down his chest. Deserving QRPers will never forget the announcement at 1436Z when FOØXX decided to fly high into Europe but again on zero beat. The 2 meter box went dead. FOØXX pulled out three Europeans from the QRM on zero beat and continued split with the Stateside gang.

This, then, was the Grand Opening for the 1985 Clipperton DXpedition. "Why don't they send Bob Ferrero out for DXpeditions these days?", grumbled one middle-aged DX type who still remembered Kingman Reef outing and the fact the Ferrero sent the others cleaning up the place while he was running the Europeans!

It was late Monday evening, the second day of the operation - European time - when the Local QRPer casually showed up on the 2 meter box and reported passing over the window earlier in the day. He was just supposed to take a little nap but it turned out a good solid 6-hour sleep. The past six days of hanging around, night and day, had taken their toll.

"Hey, what's going on?" he inquired with renewed persistence in his voice. "Well, you know it was at 1400Z when some people made it on SSB but tight on the heels came a grand opening at 1600Z with something like twenty of the Deserving flying home during the two-hour window. But what's the frequency and the time for tomorrow's attempt?" he demanded with a shade of despair creeping in. "Be prepared," somebody broke in on the channel, echoing the words of the celebrated Lord Baden - Powell. Certainly it is a truth that top DXers know when to be ready, when to worry, when to rejoice. One only has to listen to learn. DXers have a good and valid explanation for most everything.

The third day was clear and crisp, with temperatures in the low thirties and the beam elements drooping in the freezing cold. Northern lights were romantically blazing across the skies but their impact on HF propagation was, of course, predictably devastating. The Local QRP type maintained his lonely vigil, still refusing to hit the sack or fix a decent meal for himself. Just prior to midnight, he took a tranquilizer - his first. Many will believe that a true-blue DXer will never lose interest in the chase, even in the face of great adversity and this is a correct belief. When you attain the 300 DXCC sticker, you're passing from the DX land of plenty to the land of eternal famine.

Wednesday, the fourth day, dawned with a dazzling sunshine lighting up the snowy northern landscape when FOØXX was heard briefly down in the village. Evidently they had put one of their cooks in the chair again as he decided to go split down the band and call by districts. It was only the ninth district that gave the north of Europe a reasonable chance since 9s were relatively rare on the southern end down in Italy, Spain and France. Over in the UK, the British had no 9s whatsoever, so the chances were just great.

But the unfortunate fact of the matter was that up here in igloo country, the ninth district was northern Lapland, an area with just three hams and none of them interested in DX. "Why are they sending these clods to those places? I'll never get Clipperton if they don't let Eric, K3NA operate. He's been to Europe ... he knows what Europe is all about," the QRPer protested.

Finally Thursday rolled in - a day of great hope. A lot of money was spent on making telephone calls to get everyone tuned on frequency for a now-or-never shot at the elusive DXpeditioners. Everyone was lined up there, including the fatigued QRP type who had stacks of sedatives handy for that thrilling moment. It was scheduled to start at 1430Z - the whole world would come to a halt, the frequency would clear up and the U.S. callers would take some time off and let the folks from the village in the

north sail through. All these would crown the week's hectic chase and reward everyone for his painstaking efforts.

"They call him Franz," the Old Timer advised others on the 2 meter box. "it must be Langner, the best of the Europeans - but no sign of him yet." Hearing that, the Local, now growing increasingly impatient, thought to himself: "Spare me the kind words, just line up the DX so I won't miss any" - but was too much under the pressure of finer emotions to say it aloud.

This was the time, this was the window but Franz was not heard in these northern parts yet. It brought a laugh from the Italians with someone in Rome telling the northerners to call on CW - Franz was coming through loud and clear! Luckily, the message got through - we should try later, say, in five minutes. No signals reaching out into the northern village yet. All was quiet, silent, dead ... Now what? The 2 meter DX channel exploded into life. It was only VE3HGN who saved the situation. He played a recording of Langner's last transmission from Clipperton. It surely sounded great in Toronto and it was even in six languages. We understood it all right. Game was over. Relax.

The Local DX type was still alive but in his present mood, he could not be counted upon to go in for The Foundation's membership drive. What he wanted was to get people to resign. He called everything a pancake - even his missing family. His stomach ache was gone and he was still missing Clipperton and Revilla Gigedo, islands that could almost be seen from mainland U.S.A. The Local looked desperate. He had lived through days of paramount excitement but more lay in store for him.

Time wore on and it was not until late Friday night that word reached the QRPer over a pint of beer at the local pub: the Clipperton crew had hit the airwaves again! Sobering up instantly at the prospect of hearing the adventuresome DXpeditioners, the Local was, however, quickly brought down to earth from his fantasies: surely they had passed all the windows and the FOØXX team must be signing Maritime Mobile since it was said in six languages and the Local understood three of them.

But it was true - Clipperton was on. Only there had been no link, no QSP to the northern village to inform the anxious QRPers. Somebody happened to be around; but he confirmed that it was not going to make the day for third-layer QRPers: they had probably put another zero beat guy on for Europe.

Saturday looked sunny, as beautiful but freezingly cold as the past ten days or so. "As long as there is life, there is hope," the Local tried to convince himself. The only difference was that the wakeful people looked even more exhausted. The Local was there, turning his full-bore linear on once again for something that he didn't believe in himself. The window would open at 1430Z but at 1230Z, FOØXX was already barely copyable. "God has had mercy on us," someone commented quietly on the 2 meter box. "God would not let them go before they talked to the folks here in the northern village - the third-layer Europeans." The Clippertonians were running a hefty U.S. pileup obviously excited about their success - they must have worked every Statesider on six bands and probably even on satellite.

It was Langner again at the controls there. Rusty must be packing the tents. "QRT NOW," Franz said - only in English - and quit. "What the hell, this happened two days ago," moaned the QRPer, being basically optimistic by nature.

Undaunted by the obvious setbacks, the Local kept tuning for the next three days and nights since FOØXX was reportedly running only one station due to gasoline shortage - and many other rumors were criss-crossing the world. It wasn't until the Fresno weekend that the QRPer received final confirmation that the boys were back home from their adventure, showing their crabs and logs - but no QSOs to the northern village.

The QRPer was amazed to read in some of the recent DX bulletins that it was a fine operation with more than 30,000 QSOs on the books. Unable to stand it any longer, he wanted to get it off his chest and vent his frustration on somebody and, of course, he rounded up the Old Timer one late evening. Otherwise, the Local had made speedy recovery, he was back at work and the family had returned from a lengthy stay with relatives.

Bracing himself for the encounter, the Old Timer was ready to let the DX type hear the truth. But before the truth was revealed, some general remarks were made about the art of DX, words of wisdom were uttered that left a lasting mark on the fledgling DXer. :"When you find DX," the Old Timer began pensively, "you find something not generally matched elsewhere. Just DX itself, the working of stations halfway around the world, the friends you make in foreign lands, the camaraderie and mystique, the fierce competition, the status that you gain as you advance in DXCC counters. There is a joy and pride that only a DXer can know. It is a world by itself. Once you've entered it, you usually never want to leave it." The Local looked on in complete agreement, nodding his head approvingly.

Finally, to lend additional weight to his words, the Old Timer stood up, extending to his full six feet and two, walked across the shack toward a pile of books lying on a table, picked up the topmost blue-covered book and read the truth from Cass's great codex that reputedly adorns the bookshelf of every DX Believer:

It is a great DXpedition if you worked it and probably logged a few back-up QSOs, but it was a total disaster if propagation did not favor your area or if your amount of aluminum tubing wasn't enough this time. But that's the way it has always been and probably always will.

Best regards to the FOØXX gang from the northern village. (OH2BH & OH2BN)

FOØXX, Clipperton Island - the dream of QRPers left again "operated" by birds and crabs. DJ9ZB

REPORT ON THE ARRL DX CW CONTEST

Dave Pascoe, KM3T

CQ TEST CQ TEST DE N3RS N3RS K.....

N3RS DE KS8S K.....

KS8S DE N3RS GE OM OP HR DAVE KM3T BK.....

KS8S: HW R 40M CONDX FER U? NOT TOO GUD HR IN OHIO, OP HR KD8NS BK.....

N3RS: CONDX HR ARE STINKO BT STRUGGLIN ALONG BK.....

KS8S: HI HI, FB DAVE BT GL IN TEST CU TM NIGHT ON 3830.....

N3RS: 73 ES GL BT QRZ DX TEST DE N3RS K

I know for a fact that this running of the ARRL CW DX CONTEST wasn't exactly anything to write home about, but I'm going to do it anyway. The one exciting thing about the weekend was that there was an incredible amount of serious multi-op activity within the FRC. It looks like W2REH copped the Multi-Two class and N2ME stole the Multi-Multi honors from out of nowhere? Congratulations, guys. The operators at REH were KY2P and W2GD. The ME crew (K3JLT's station) consisted of K3JLT, NF2L, N2ME, K2BU, and WA2HGM. They amassed 3.1M points with just those 5 ops and two towers. Pretty good trick!

My time was spent at Sig's (N3RS), helping Dave (N3RD) and Walt (WA3LRO) run a small Multi-Multi. We did pretty well, considering the numerous problems that developed, starting a half hour into the contest. The first thing to go was the 80 m inverted-Vee wire beam for Europe. I didn't witness this personally, since I didn't arrive until Saturday morning, but the bottom line is that a junction in the coax line absorbed some H20 and arced over, causing a very high SWR and rendering the antenna useless. Walt did manage to get it fixed on Saturday afternoon, so we were all ready for the Saturday night EU run, but the noise levels that night were horrendous! Even the beverage wasn't much of a help. We had one station set up for 40/15 m and the other for 20/80/160 m. Even with the high noise level, Walt and Dave made about 160 QSO's on 80 just Saturday night. We would have had a phenomenal 80 m score if we could have operated Friday night, when the band was much more quiet. The ten meter antenna hadn't been installed yet, so we didn't have to worry about that band. That was a good thing, because we had enough to worry about as it was.

On Saturday night, the 15 m stack seemed to be exhibiting a high SWR (3:1), so Dave, Walt, and Sig finally figured out that the transmission line was shorted at some point between the tower and the house. Instead of finding exactly where the problem was, the decision was made to just replace the coax. Special thanks goes out to George Rodgers (N3LR), his son Craig (KR3W), and KA3FXX who trucked over to the RS QTH in their jeep with more than enough coax to solve the problem. Whew!!!

All in all, spirits were a little bit down because of the various problems, but we did pretty well, considering everything that happened. Forty meters worked extremely well, so the old faithful 2 el. full-size at 140' really paid off. An interesting note is that on Sunday at 2200Z I pointed the beam south-east and called CQ for 5 minutes and both YB2BNJ and JA5BJC came back to me. The signals were very good, and they seemed easier to work than on the normal 40 m short-path opening in the morning. Twenty meters had its share of decent EU runs, but we should have pointed the beam south more often to work South Americans. Next time, right?

I only have one final note and it is in regard to calling DX out on the repeater during contests. Certain people, and I am sure we all do this at one time or another, seem to insist on giving the frequency before the call sign. For example, this type of thing was heard many times over the weekend: "7.001, 7.001 VQ9LD, Victor Queen Nine Lima Delta, 7.001." The proper way to do this would be: "Forty meters, Forty meters, Victor Queen Nine Lima Delta, VQ9LD, 7.001, 7.001, VQ9LD, N3RS." This way those who don't have a full-time 2 m operator don't have to spend an excessive amount of time listening to the rice-box.

That's about all I have for this time. Hope to hear everyone active again in the next Contest. By the way, I recently received a letter from Scott Tyson (N3ATQ/SV0DN/9) on Crete and I'll pass some of his stories on next time. (KM3T)

Here they are, telling the lies and confusing the competition at 3.00 o'clock in the morning at Dayton Stoufer's hospitality suite. L. to r. Joe Clayton, W2REH, winner of multi op - 2 TX category in 1986 ARRL DX CW; Ken Glanzer, K7GCO, our Mr. Antenna; Dave Pascoe, KM3T, learning from the old tigers and drinking at the same time; Jack Gelfand, K2BMI, simply enjoying the great atmosphere and friends.

IRSA COMPUTERIZED LOG STANDARDS

Yuri Blanarovich, VE3BMV

As we use computers more and more, there is a need for a standardized format of our logs and computerized logging. The standard is needed because of the different varieties of computer systems, operating systems, and software packages available. A great saving of time both for the contester and sponsors of the contests can be achieved if we all used the same format for our log data regardless of what kind of computer we use. The following is a rough proposal to achieve that. Starting with the contest logging, the same principles can be applied to DX logging, QSL managers, or anyone who can take advantage of using computers to do the "dirty" work of processing QSO information.

There are three distinct areas of contest log information:

1. Summary
2. Scoring information
3. Log data

The computer hardware should be tailored to the users pocket and should satisfy the requirements for logging during a contest.

The computer software will have to be capable of keeping track of all the chores needed during the contest, to be power failure proof and produce the standard format output described below. The kind of program used is not important, as long as the output is compatible with our format, so that other computers and programs can understand it.

Proposed data format.

The most important part of a log is the QSO information. We need a nice compact format that would take very little memory space but yet give us flexibility we need.

Having worked with various data base programs, I have found that the best format is the one used by MicroPro (the WordStar people) for their InfoStar data base management program. This format is compatible with WordStar MailMerge and other programs which have conversion utilities to use data from InfoStar. The dBase II or III programs save all the blanks in the fields that are not filled with data. This wastes memory space and steals the communications time when sending those blanks over the modem.

Just to clarify some terminology used in the data base management programs: FILE is a bunch of records saved under a distinct name on the disk; RECORD is a bunch of fields belonging to one distinct entry (one line of the log entry); FIELD is the one identifiable item within the record (call sign entry in the log); CHARACTER is the letter, or number, or special characters used in the field.

First of all, we should use only the upper case letters in order to be compatible with even the simplest computers and to avoid switching between the upper and lower case while logging.

The RECORD should be made of a minimum number of fields needed to provide the necessary information about the QSO with the minimum space required. As I mentioned before, in dBase II format, if you designate let's say, an 11 character long field for the callsign, the unused characters will be filled with blanks and stored in the memory taking up the space. The dBase program identifies the fields by counting the number of spaces from the beginning of the record. There are no field separators used. The record is terminated with a RETURN code.

In the Infostar format the blanks are not stored, fields are separated by the commas which are inserted by the program automatically and the record is terminated by the RETURN (ENTER key) code. One might argue that for the QSO information record we might have a tie between both systems. In my experience I have found the InfoStar format more flexible and less prone to disasters. It takes considerably less space when storing the variable field length information. Also, it will allow more flexibility between different contests that might use various lengths of exchanges and scoring information. An example of a record would look like this:

NP4A,599001,579021,A,B,0031,054,3,,<CR>

This record has ten fields and is terminated with CARRIAGE RETURN CODE <CR> (hex ØD, decimal 13), normally not visible on the screen. Note that the last two fields have no entry in them and there is no comma after the last field, just CR. This sample record contains a simple form of recording all the necessary data about the QSO and can be used for calculating the scores and filling out the QSL cards.

The first field contains the call sign and an unlimited length could even hold VE3BMV/W2/MM.

The second field has the exchange sent. It could be 59001 or 599001 or even 59916723. On CW we use a three digit report and on SSB a two digit. A QSO number should always start with 001 - three digits. This way we know we are not missing the digit. When we get over 999, we go into the fourth digit. With these rules the program can distinguish the RS or RST from the QSO number. Otherwise we would have to use separate fields and more commas. The second field can be generated by the contest program automatically. We could read the S-meter and insert the sequential QSO number by the computer.

The third field is the same as the second and it contains the received report.

The fourth field (A) contains the BAND information. Bands are coded in the alphabetical order A means 1.8 MHz, B - 3.5, C - 7, D -10, E - 14, F- 18, G - 21, H - 24 and I - 28 MHz, continuing right through the VHF, UHF etc. If we stick with this convention, the programs can decode the band and produce either "80 m" or "3.5 MHz" to print the log sheets or fill in the QSL cards.

The fifth field is the code for the Date. For the contest log we can use just A and B meaning 861004 and 861005 respectively, or in the long form 4. Oct. 1986. A and B will be coded in the heading for the

log record thus saving us space and repetition of the same six digits with each contact.

There are various ways of writing the date across the world. Things get confusing when we get a card with the date written as 03. 04. 1986. What is it? April or March? Was it written by a European trying to match the American style or vice versa? QSL managers hate it because it puts them through the paces of checking both months.

We recommend using the following format: YYMMDD is a six digit number where YY are the last two digits of the year (86), MM is the month (00 to 12) and DD is the day (00 to 31). Also, these numbers can be used for sorting and searching by the computers. So let's stick to it.

The sixth field is the time code. This is our familiar four digit number in GMT, UTC and ZULU, but not your local time! It can be generated automatically by the computer calendar/clock hardware or software. To be uniform we recommend entering it when the callsign and exchange entry is completed.

The seventh field is the code for the multiplier. Here, it is recommended that all countries be assigned a three digit number associated with the country regardless of their prefix. That number should stay with that country as long as it is on the DXCC list. If the country is deleted from the list, this number should not be reissued. We can safely reserve 000 to 499 for the DXCC country list. Can ARRL provide such a list? If not, then we will prepare it and make it available to all who are interested in the computerized country tracking.

We can use the 800 numbers for the ITU zones (801 would mean ITU zone 1) and the 900 numbers for CQ WAZ zones (901 to 940). The 700 series can be used for the WAE countries list. Our WRC contest can use the 600 series for the call area and mobile multipliers. We should be able to assign and cover all the popular contests and awards with this system. Tables can be prepared and distributed to all computer users. This will greatly simplify the record keeping for the various awards and contests. Again, any of the fields can be expanded with more digits if needed, the "InfoStar" format allows that. Using the lookup tables, computers can automatically assign the multiplier number for every first multiplier worked on each band or according to the rules. (In most cases, anyway.) If the QSO is not a multiplier, nothing is entered in this field.

The eight field is for the QSO points. We would use a single digit numerical value for the QSO points which could be generated automatically by the computer according to the rules.

The ninth field can be used for a second multiplier such as the Zone in the CQ WW contest, using the codes mentioned in the seventh field. For contests not requiring this information, it can simply be left out and the record terminated with <CR>. We can use the last field in the record for notes such as the PO Box number, QSL info, name, or anything we like.

The same goes for the tenth field. It could either be used or omitted.

This variable length field, or separation by commas can be used for various purposes. We can use it in the VHF contests to accommodate the complete locator squares, etc. and we can add more fields for other record keeping such as equipment information, address, operating habits etc. Field #11 is reserved for the operator's name, #12 for QSL info, #13 for address, #15 for antenna, #16 for power, #17 for weather, and so on. Just remember, if you use the comma in the field, then that field with the comma must be surrounded by the " signs (previous field,"13 elements, 250 ft tower",next field,). It is better not to use the commas. Keep it simple.

The HEADER.

Each contest entry file should have a header containing the SUMMARY and SCORING information.

The first record of the header would contain the SUMMARY and should have the following fields and their meaning:

1. Call
2. Your DXCC Country or multiplier number
3. Name
4. Surname
5. Street address
6. City
7. State (if needed)
8. Postal (ZIP) code
9. Country
10. Maximum power used in Watts
11. Equipment
12. Antennas
13. Club member of
14. Operators (if other than the callsign used or multi op stations list all operators here, separated by space).
15. Notes and comments

Example:
1S1AA,316,Joe,Spratley,1 Bullet Ave,Sandy Dune Island,,59905,Spratley Islands,2000,Swan 500,3 el.Yagi,FRC,K1MM DJ6SI,Love the sunset<CR>

If your computer can produce upper and lower case letters, you can use them here in the headings.

The second record of the header should contain the scoring information in the following fields:

1. Contest name
2. Date A (first day) (i.e. 861004)
3. Date B (second day if applicable
4. Power group code
   (H - high power 1000W, L - low power 100 W, Q - QRP power of 5W output)
5. Category of competition code
   (A - I single band 160-10; J - Single OP all band; K - Multi Operator, Single TX; L - 2 Operators Multi-Multi [not used by WRC]; M - Multi OP, Multi TX)
6. Number of valid QSOs (minus duplicates)
7. QSO points
8. Number of multipliers
9. Number of 2nd multipliers (zones in CQ WW)
10. Claimed score
11. Rest periods (i.e. ,1024-1320/1520-1610,)

The above is the minimum required information needed for processing by the contest sponsor. Additional information can be provided to help processing and double checking the entry. This can be supplied in the following records:

The third record would hold the breakdown of the band scores for those operating all bands having the following fields:

1. Band code, starting with A - 160 m
2. Number of valid contacts on band A
3. Number of QSO points on band A

4. Number of multipliers on band A
5. Number of 2nd multipliers
6. Same as field 1 for band B

repeating the sequence of 1 - 5 for each band, including the bands not used filled with zeroes.

The fourth record would hold the list of multipliers (numbers) for band A in the following fields:

1. Band code, starting with A (160 m)
2. Three digit code for the multiplier worked
3. same as 2 for the next multiplier, continuing on until all multipliers for band A are listed, separated by commas and terminated by <CR>

Example: A,021,034,056,321<CR>

The records number 5, 6, 7, 8, 9, 10, 11, 12, 13 are the same format as record #4 for the remaining bands.

We can reserve records #14 and #15 for other use.

Record #16 can be used for the list of stations worked on band A in the similar format as was used for record #4 for multipliers. The same goes for records #17 to #28. The calls should be listed in alphabetical order, separated by commas and record terminated by <CR>.

Example: A,1A0KM,A2CAW,BY1PK,C9BL,W2GD<CR>

Again, the records from #4 on are not necessary. They can be regenerated by the program, but they should be included just for the checking purposes.

This is a rough draft of the proposed standards which we present for discussion and suggestions. It should be finalized and made into a standard that we can all take advantage of. This would simplify the log checking and processing of the results tremendously. Logs can be submitted on diskettes, over the air via packet, or any other fast and inexpensive way you could think of. Crosschecking and verification can be done by the computer which will save quite a bit of time. In the case of our WRC contest, we are looking at a lead time of about three to four months from the date of the contest for results. This is considerably better than what other contests offer.

As for using computers for logging during the contest, the IBM-PC compatible machines appear to be the best. The prices are dropping and the machine has enough memory capacity and storage to handle even a superstation's workload. The single band operators can probably get away with a Commodore 64 or such. The most popular disk formats would be C64, Apple II and IBM PC. We can accommodate all three.

When your contest log diskette information is sent, the file containing the header should be named with your callsign and .HDR extension (VE3BMV.HDR). The second file containing the log should be named with the callsign and .LOG extension (VE3BMV.LOG). If there is a problem creating separate files you could use a single file named with your callsign and extension .HLG.

This system can be very helpful to all those who like to chase awards, QSL managers, DXers, VHF operators and anyone who likes to keep track of his precious contacts. Applications can be produced very quickly saving quite a bit of searching and typing of the list of contacts. The above described system has the flexibility to accommodate variations in the length of fields and requires a minimum amount of memory and space for storing the information in the computer.

Please let us know your feeling about this system.

radio funnies

Mike Crabtree, ABØX

M.A.D.DXERS STUN DAYTON!

This year's Dayton Hamvention was marred by two unusual incidents that authorities believed maybe linked to the controversial group known as the Mother's Against Drunken DXers. Saturday morning at Dayton, midway through the DX Forum a questionable fire was started in the Hara Arena and the entire facility had to be evacuated. On Sunday a power transformer feeding the arena blew up. As a result a large portion of the arena was without power for over 2 hours.

According to an unconfirmed report, Hamvention authorities received a phone call after both incidents from M.A.D.DXers claiming credit for the actions.

Both attacks were obviously aimed at DXers. Saturday's disruption of the DX Forum forced several hundred DXers to stand out in the hot sun for over an hour with no access to the arena beer vendors. Sunday's power outage was designed to confuse and disorient DXers with severe hangovers obtained while carousing in the hospitality suites the night before.

However, a Mother's Against Drunken DXers spokeswomen disavowed any knowledge or connection to the live hand grenade found in the flea market during the Hamvention. The M.A.D.DXers pointed out that their only goal was to stop wife abuse by drunken DXers. The photo , provided by an undisclosed source close to the M.A.D.DXers, shows key members of their Hit Team in front of their motel in Dayton.

An unconfirmed report places the KCDXC Hospitality Suite at the top of the Hit List for next year's Hamvention. However, a KCDXC officer was quoted to say, "If that is true, we will hire Chuck Norris to provide security for the suite next year!"

Nevertheless, it's obvious that the M.A.D.DXers are serious and are a force to be reckoned with in the world of DX! (KCDXC)

TEST YOUR SKULL!

Thorsten Balk, H5AI

Groucho's DXer Quiz:
(Answer with A or B or C and see if you are worthy or merely a "knob tweaker!")

1. When it is best to listen on short wave:
   A: Day? B: Night? C: Lunch Time?

2. Does a good receiver have:
   A: Transistors? B: Tubes? C: Almonds?

3. What does GMT mean:
   A: Time in general?
   B: Time in the British possessions?
   C: Tube poisoning?

4. When is a longwire really (I mean really!) long:
   A: 20 meters? B: 20 feet?
   C: Undecided, vertical user?

5. What does QSL mean:
   A: No response? B: Valve shortage?
   C: Point of no return

6. What would best describe "crystal control":
   A: Diamond grinding plus cutting?
   B: Polishing one's receiving utensils?
   C: The approximate tuning of SSB signals?

7. What does "beam" mean:
   A: Boom? B: Bean (misprint)?
   C: To give someone directions?

8. Is "tuning in" hard work?
   A: Yes B: Sure? C: Always?

9. When do you use your BFO:
   A: What? B: At nights?
   C: Not on FM?

10. Do you read RADIOSPORTING:
    A: No? B: On the job? C: On power failures?

11. Is an antenna:
    A: Necessity? B: Never?
    C: What is a necessity?

12. Do you speak a foreign language:
    A: Burmese? B: 4 letter words only?
    C: QSL, BFO, PRP, and the like?

13. What have sunspots to do with longwave:
    A: Don't know? B: Same? C: FM or AM?

14. Do you believe this test:
    A: Yes, sure, always? B: I'll call Mommy?
    C: After paying the subscription fee?

RESULTS: Here you get it.

1.	A=1	B=1	C=3
2.	A=5	B=2	C=10
3.	A=1	B=1	C=0
4.	A=0	B=0	C=3
5.	A=5	B=2	C=6
6.	A=1	B=2	C=3
7.	A=0	B=2	C=3
8.	A=2	B=2	C=1
9.	A=2	B=1	C=7
10.	A=0!?	B=5	C=20!
11.	A=2	B=1	C=2
12.	A=2	B=1	C=10
13.	A=1	B=2	C=4
14.	A=0	B=2	C=10
15.	A=0	B=0	C=0

Now add your points and see how you'll light E up:
12 to 15 points: You're only good for local slang radio, own a Doberman and hate your family!
12 points to 15 with A:? You're really a cassette-only type, don't know the meaning of life and use mouth freshener!
15 points to 37: You are it! Yes, you are! The middle of the bunch. Your love your receiver more than your livestock! You have heard English and know your antenna manual by heart. You own a good sense of humor and want to be rich!
Above 37 points:
Impossible! You are the dream DXer. The cream of the crop. The beautiful one. Everybody outside this country loves you! You speak perfectly. You are charming and fractionally polite. And, your are a mediocre supporter of RADIOSPORTING (or SADXC)! You, "The King," the only one who believes in me, Groucho - may the lightning hit your antenna!

(H5AI)

Mike Crabtree, ABØX, just thought of another funny one.

Bill Henderson, KØVBU is taking lists of zeroes at famous KCDXC hospitality suite

WHAT NEXT?

Carl Huether, KM1H

It had to happen sooner or later. Where it will all end I could not even begin to guess. What am I talking about, you ask? Well, it is the DVK-100 Digital Voice Keyer, from NEL TECH LABS INC., of Londonderry, N.H., which made its public debut at the Deerfield, N.H. swap meet on May 10, 1986 (second largest meet in the US). My prediction is that it will revolutionize SSB contest the way the memory keyer did to CW.

OK, enough hype. What does it do, how can it improve my contest score and what is the price? Fair enough questions, so let me attempt to sort them out.

The DVK-100 is a full digital computer with more memory than most home computers. It digitally records and stores voice messages in up to four segments. The message segments are hard sectored and offer storage times of 16, 8, 4, and 2 seconds respectively. All operations are controlled by a membrane keyboard that features a light and smooth touch that will not wear fingertips smooth after a 48 hour contest. Each selected function is illuminated by a LED in order to minimize confusion and errors. The keyboard is mounted on the sloping front panel for maximum visibility and ease of use. It also features a guarantee of 2 million operations. No, there is not a counter to monitor key strokes but NEL TECH will replace any keyboard failure for free, without a time limit, to the original purchaser.

A built in voice processor tremendously increases talk power with no noticeable distortion and without the annoying rise in background noise common to so many other units when there is no voice input. Messages can be recorded with or without processing and the function may also be switch in or out during recording. It may also be switched in or out when bypassing the storage unit and keying the transmitter directly. A combination of the DVK-100 plus a properly adjusted processor in the transceiver generates talk power that is unbelievable. Amplifiers with marginal power supplies are going to need extra fans to keep the transformers from glowing!

A monitor speaker is provided with selectable high or low levels or it may be disabled from the keyboard. An output jack is provided to drive an external audio amplifier so that the unit may be used as a voice announcement system, or for numerous commercial applications. An end of transmission "beep" is also selectable from the keyboard.

Compatibility with most transceivers/transmitters is assured by a number of well conceived features. First, the input is selectable to accommodate dynamic, electret and condenser microphones. Second, correction for gain and bias is automatic and the unit can not be overdriven. Finally, the output VOX/PTT control line is selectable for either positive or negative keying. Even my old Drake C Line is compatible.

The DVK-100 is the brainchild of Gary Nelson Stapleford, N1BPO, who is a leader in voice technology with over 15 patents. The circuitry is state of the art and contains enough unique twists (i.e. patentable) to bring the price within consumer levels. Basically, continuously variable slope detection (DVSD) with a sampling rate of 32 kHz and 4th order switched capacitor filtering is employed. Memory storage is 128K byte and the CPU runs at 12 MHz. A full blown technical description is not possible at this time due to the proprietary nature of the product. All of this is contained in a case measuring 7"Wx10.6"Dx1.65"H. Small enough for any operating desk or field day location. The power supply is a wall outlet UL/CSA listed unit and is supplied. Total power consumption is approximately 15 watts.

Of supreme importance to the amateur radio market is radio frequency interference from/to computer devices. Let me say unequivocally that the DVK-100 "ain't got none." A combination of pi-network lead filtering and optical isolation results in a unit that is able to conform to commercial quality RFI, EMI and ESD specifications. A 1500 watt amplifier running out of its cabinet caused absolutely no interference to the unit. The amplifier did wipe out every TV and VCR in the house! Conversely, the DVK-100 has been operated with the PC board lying on the operating table (no cabinet or shielding) and caused no detectable interference on any ham band from 1.8 to 148 Mhz.

Throughout the demonstration, NEL-TECH stressed quality and reliability. From the double-sided PC board to the top quality components to the under-rated power supply, this unit goes first class. The unit was operated with the sun beating down, causing the cabinet to be too hot to touch. It never missed a beat. In normal operation there is no noticeable heat generation. The complete DVK-100 is warranted for 12 months, parts and labor, except for the keyboard as mentioned earlier. Since it is software driven, product updates are easily accomplished. Each unit is supplied with a registration card so that any bulletins or enhancements can quickly be distributed to the owners.

The impact that this product can have on the contest scene can only be surmised at this point in time. My own personal opinion was stated in the opening paragraph of this article. Tape loops, with all their attendant shortcomings, have been around for a long time. They are essentially a single function device, whereas, the DVK-100 can supply most of the information needed in a contest exchange. This writer has experienced a very noticeable improvement in time available for such housekeeping chores as logging, duping, etc. Since K1AR is already able to operated his body as a computer, maybe us mere mortals can now compete! On the air demonstrations have continually brought enthusiastic responses. I have yet to find anyone who could tell the difference between DVK-100 and my natural voice.

OK, now comes the bottom line. The DVK-100 is being introduced at $349 in single quantities. A special club discount will be available to those submitting a request on club letterhead. Affiliation with national associations is not required. International inquiries a welcome. The DVK-100 is available from: LC ELECTRONICS, 54 Hobbs Road, Pelham, New Hampshire 03076. Telephone: 603-635-3048, no collect calls please. Specification sheets are available upon request.

"What next?" is the title of this review and I will try to hazard a guess. Having known Gary Stapleford for many years both professionally and personally, I would say that NEL-TECH LABS will create a very comfortable niche for themselves as suppliers of very high tech accessory products. The contester, DXer, repeater fanatic an others would be amazed at some of the product ideas Gary makes sound so easy!

(KM1H)

RETREADS

Bill Hohnstein, KØHA Nov. 21, 1985, May 2, 1986

The antenna's now straight,
just over to its support...
Now I know where I went wrong.
I feel a pulsing electric current
ripping through my body.

7200 VOLTS!
Drop the antenna!
It's frozen to my hands.
I try to run,
my muscles do not respond.

What can I do?
I could yell for help,
but I'd be fried
before they could even get close.
I run out of ideas,
I then bl a c k o u

Hitting the ground wakes me up.
I roll and roll and roll
till I feel that I am safe.

Lying
Gasping
I finally stand up.
That was a close one,
I guess I'm ok.
I keep telling myself I'm all right.

The top of the antenna
is in the next yard,
so over the fence I hop.
The antenna had melted in two—
had that really passed through me?

I'm the patient,
feeling growing pain.

I'm the driver,
speeding around slow cars.

At last the hospital...
"What's your name?"
"Where do you live?"
"What insurance do you have?"
How long can this go on?

"What's wrong with you?
You look ok."
I quickly point to my shoes.
That does it!
I'm placed in a wheel chair,
and my hospital drama begins.

"Grafting," I hear.
I think of those trees
that we joined together
during my grade school years—
will I be the tree branch this time?

The burn unit's war stories
make my damage seem small.
Only when they hear
7200 VOLTS
do they listen to my words.
"You shouldn't be here."
"Not even alive."
I don't know what to say.

Somewhere there's a reason,
I'll find it out,
and my retreads will take me there.

Starting to walk towards my house,
"Is your power off, too?"
A neighbor yells out her door.
I smile to myself, say I don't know,
while walking inside my home.

Suddenly I realize
that I have this new pain—
instantly I know what's been done.

Staring down at my shoes,
I see two freshly burnt holes.
"God! I guess it's not over,"
and my mind races off again.

Carefully the shoes come off.
Slowly the socks are pulled down
until I see the white burnt flesh.

Not something to dwell on,
I soon have my fill.
I hide the wounds back in my shoes.

I pace through my crisis,
better go to a hospital,
is what I finally decide.

Passing by a mirror,
I stop cold dead—
the grass was wet,
I remember rolling,
but why the mud covering my face?
I wash it off—must look good
if I'm to see all those white suits.

Into the car, I start it up
and the "ambulance" swiftly takes off.

Bill Hohnstein, KØHA
Feb. 25, 1986
Apr. 14, 1986

FLASHBACK

The Fourth of July.
The fireworks.
The dazzle of those bright lights
extending out from the point of explosion.
The graceful rays.
The sparkling colors.
The upclose vision of the lights.
The brilliant glistening hot sparks
radiating from that center.
The feeling of being blown back
from my file shorting that line power switch.
That involuntary scream as I see
Hell's fire taking form.
The pain of those scorching hot lights
burning my arms,
attacking my hair.
The instant evaporation of all within.
The sight of brown burnt flesh
no longer feeling to be a part of me.
The fear of seeing my arms
for their final day.

I feel cold inside.
My legs start to shake.
"They'll be here soon."
I shiver, dreaming
of my arms decaying.
"They're always busy at this time."
Armless people wildly dance during
forty five minutes of waking nightmares.
"You'll probably need grafts,"
the Burn Unit's nurse says at a glance.
My retreads are wheeled slowly home...

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.250	.058	4.43	1.500	.058	33.37
.375	.049	6.37	1.500	.125	68.58
.375	.058	7.34	1.625	.058	36.29
.500	.035	6.48	1.625	.125	74.84
.500	.058	10.26	1.750	.058	39.20
.625	.058	13.07	1.750	.125	81.00
.625	.125	24.95	1.875	.058	42.01
.750	.058	15.98	2.000	.058	44.93
.750	.125	31.21	2.000	.065	50.22
.875	.035	11.77	2.000	.125	93.53
.875	.058	18.40	2.250	.065	56.59
1.000	.058	21.82	2.500	.065	63.18
1.000	.125	43.63	3.000	.065	76.14
1.125	.058	24.73	3.250	.125	155.84
1.125	.125	49.90	3.500	.125	168.37
1.250	.058	27.54	4.000	.065	102.06
1.250	.065	30.78	4.500	.065	115.02

6061-T6 Seamless Aluminum Tubing - 24 Ft. Lengths

1.500	.125	$ 76.20	2.500	.250	$249.36
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2.000	.125	103.92	2.750	.250	277.08
2.000	.250	193.92	3.000	.125	159.36
2.250	.125	117.72	3.500	.250	360.24
2.250	.250	221.64	4.000	.125	214.80

All prices FOB Twinsburg, Ohio. Payment by Visa/MC, check, or M.O. Minimum order $50.00. 10% discount on orders over $500.00, 10% discount on orders from Ham Clubs. Ohio residents add 5.5% Sales Tax.
METAL & CABLE CORP. Inc.
P.O. Box 117 2170 E. Aurora Rd.
Twinsburg, Ohio 44087 Phone (216)/425-8455

VHF contesting

John Kitchens, NS6X

PO Box 939, Camarillo, CA

CQ WPX VHF Contest

Summer is the middle of the VHF/UHF contest season. The ARRL Sprints have ended, topped off by the June Sweepstakes. CQ's World Wide VHF WPX contest is soon, July 19/20 (see CQ Magazine for details). The contest is similar to the HF WPX contests, using prefixes as multipliers. Grid squares are the exchange, but not a multiplier. CQ has recognized the extra effort that portable (mountaintop/hilltop) operators expend by creating a contest classification for them. There are seven other categories, including QRP and FM only. Even HF contesters have a handheld. Get on 146.52, and pass out a few points.

West Coast VHF/UHF Conference

I just got back from the West Coast VHF/UHF conference. It was a weekend of learning, talking, storytelling, eating, and technical forums. Reports of grid expeditions were given. During the ARRL 2 meter Sprint, K6LMN, Roger Wagner, was on from a 9900 foot location in DM37. Located on the Zion Canyon overlook pullout, snow still on the ground, near Cedar City, Utah, Roger worked N6CW in San Diego, about a 630 mile path. Roger, from Southern California, used a flashlight and compass in the 20 degree Fahrenheit weather to point the antenna toward his hometown amateurs. Roger also worked another expedition located near Austin, Nevada in DM19. John, N6ENU, convinced Tom, WA6PZL, that he needed one more trip out to the hills before his wedding day. Tom and John didn't make it to the highest peaks in the area because of gates, poor roads, and snow. Four-wheel drive and chains couldn't get them through some of the mud and snow. Finally on a hill at 8200 feet, they tilted-up the 15 foot high two meter KLM-13LBA, and the 3.818 MHz rig for coordination. After 12 hours of driving and 110 gallons of gasoline at $1.20 per gallon, they made 13 QSOs in 10 grids. Tom and John also gave us DM17 the night before, northwest of Las Vegas.

Clipperton crew on VHF

The most exciting operating news on the West Coast came from the FOØXX Clipperton Island DXpedition. Terry, N6CW, provided two meter equipment for the trip. While the Polaris sailed along the coast of Mexico toward Clipperton, the HF DXers radioed out the rare waterbound grid squares. Finally I can swing the beam over the ocean, and find someone to work. Not too many hams populate the grids out in the Pacific.

Laser communications

Several years ago, WA6EJO and K6MEP worked a 15 mile mountain top path using lasers. After a lot of talk, many letters, and time, WA6EJO convinced the ARRL that this was a legitimate form of communication, and should count as a contest contact. The 15 mile 454 THz (Terahertz) is a record at that frequency. Steve Noll, WA6EJO, continued his work on lasers and light communication. The ARRL has approved light communication for contests as long as the transmitter is a laser and the receiver has at least one stage of electronic detection. Using surplus sources for equipment, a complete laser transmitter/receiver can be built for around $100. Steve has built his lasers mainly around helium-neon type equipment, using a 931A photomultiplier tube as the receiver. A simple circulating fan in front of the transmitted light, called a chopper, provides the modulation for the signal. Steve wrote a book concerning laser operation, building, theory, and sources. To build your own laser, based upon amateur practices, a copy of his book can be bought for only $15. A dollar should cover postage. Send it to Steve Noll, WA6EJO, 1288 Winford Avenue, Ventura, CA, 93004. The spiral bound book is a 64-page detailed manual providing most of the information an amateur light operator needs to know.

September VHF Sweepstakes

Let me know where you will be for September VHF Sweeps. All of you HF types, get on the air. Contesters are contesters, whether HF or higher. We need all of the points we can get, particularly here in the west. Who knows, maybe you will like it, as the guys on the Polaris found, giving out those rare grid squares bobbing up and down in the ocean.

We need input!

I have had some reporters volunteer from around the country, but I can use all the information I can get. I want to include worldwide information in the column.

More 6 meters in Europe

Now that England has six meters, with Finland and a few more countries getting the six meter privilege, worldwide communications on VHF will be even more easily accomplished.

VHF/UHF and weather

One of the technical challenges and joys of VHF/UHF is the direct and intricate involvement with weather. Many dedicated VHFers are amateur meteorologists. Last month, Dr. Steve Lyons gave a talk at the Ventura County Amateur Radio Club meeting involving the duct between Hawaii and the west coast. Lyons holds a PhD in meteorology from the University of Hawaii. During his doctorate studies, he wrote his thesis on the ducting phenomenon. Lyons explained that the duct is always present, only broken-up during times of storm. As the elevation increases, the temperature is supposed to decrease. A temperature inversion occurs, where the air becomes warmer, then cools off again. This level of warmer air is the duct. Due to the surrounding temperature, the duct will rise or fall. If the temperature is appropriate, the duct will lower to allow the beacon on Mauna Loa, Hawaii, to transmit the signal to the other end of the duct. The temperature inversion causes the radio waves to bounce along (how about just simply refract? -VE3BMV) this layer, hopefully to an appropriate radio receiver. The top of the duct usually enters the ocean off the coast of California, not allowing the beacon signals to reach a receiver. Sometimes, the duct will be in the perfect position to allow VHF/UHF radio communications between Hawaii and California. Chip Angle, N6CA, has made the haul on 1296. Recently, the California end of the duct was large enough to allow communications several hundred miles inland. Lyons said that the high point of the duct, typically 8-10,000 feet, is near Hawaii, while the lowest end of the duct is located near Oxnard, CA. The inversion then rises in

a Vee north and south along the west coast. Therefore, the duct doesn't really "form", but just rises based upon the land/water temperature relationship. Lyons uses the duct daily in his daytime job working for the Navy. He releases his weather balloons at Point Mugu, finding the duct. He produces the information the Navy uses to direct their RADAR, which uses the duct. Lyons' night job is at the local 10-watt television station, Oxnard's own KTIE, where he volunteers as the news weatherman, but only when the surf isn't up.

Transverters

I just got my 220 MHz transverter from Hans Peters, VE3CRU. He runs a fine outfit called "Transverters Unlimited", building his own transverters, and importing SSB Electronics and Microwave Modules equipment. I'll be using it in the June VHF Sweeps, so a report will be coming. Drop Hans a SASE (with Canadian Postage) for his price list and catalog, or look for his ads.

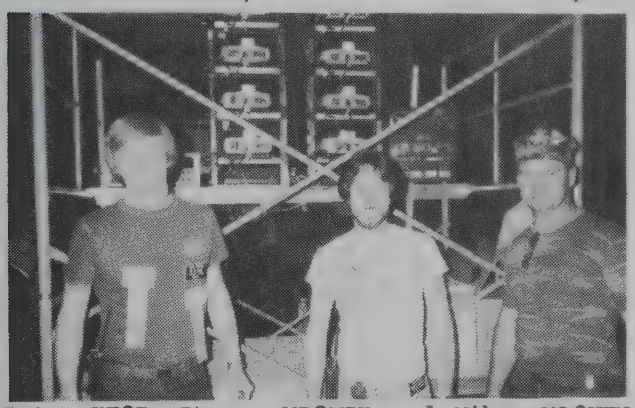
Coming

Next month I will also take a look at mountaintop hardware, some required equipment, and other information. We still need information to make this column interesting. Let me know what you want. Send in your reports, along with pictures, if possible. I'm open to any and all comments, suggestions, or criticisms. Let me know what you are interested in, or any questions you might have. If I can't answer it, I'll find someone who can.

IRSA/RADIOSPORTING VHF Contest

RadioSporting is still planning to sponsor a VHF contest. Some of the suggestions for format have included holding the contest over a two weekend period to allow for propagation variables and for groups to operate from more than one grid square. Multipliers might be the entire six-figure grid square, rather than the present four-figure one popularized by the ARRL. QSO points would be based upon the distance of the QSO, requiring a computer program and the six-figure grid square to compute the points. A simple program is available from the ARRL, or any of the programs used in Europe would be appropriate. This is the method used most frequently by the Europeans in their contests. Let me know your opinions, thoughts, and ideas. (PLease read the proposed IRSA computerized loging standards and let us know if any changes are needed to accomodate the VHF work when contesting and working VHF DX via various modes. - VE3BMV)

Until next month, John,NS6X



Pete, KT2B, Steve, WB2WIK and Mike, WA2VUN, famous VHFers, put on a fantastic multi-projector slide show at the Hamvention's Contest Forum.

OPERATING THE SMALL STATION

Paula Franke, WB9TBU

PO Box 873, Beecher,IL 60401

This year's Dayton Hamvention is history and I must say that this was one of the most enjoyable ones that I have attended. It was good to see so many supportive people visit the Radiosporting booth.

One of the highlights of my Dayton weekend was getting together with the QRP Amateur Radio Club, International. This has got to be the friendliest group of hams I've ever had the pleasure of meeting. The group held an "open house" at the Belton Inn on Saturday night, complete with pizza and pop and good conversation.

The evening was spent swapping stories of QRP operation, the big ones caught and the ones that got away. Joe WB8CTC shared his hint on how a bit of inventiveness on his part helped him work Tom Christian, VR6TC on Pitcairn Island. Joe got Tom on his first try by calling "WB8 Christian Tom Christian" using an Argonaut barefoot and a 2 element quad. With this set-up, Joe has worked 209 countries. Joe's QTH is in the depths of the Ohio River Valley in WV

I would like to thank Jim Stevens KK7C (editor of the QRP Quarterly) for making a total stranger feel completely at home. I'm really looking forward to meeting everyone again next year.

The QRP ARCI sponsors an informal QSO Party the first Sunday of each month at the following times and frequencies:

FIRST SUNDAY QRP SCHEDULE

UTC	CW	SSB	NOVICE
14-16	14.060	14.285	
16-17	21.060	21.385	21.110
17-18	28.060	28.885	28.110
18-19	7.040*	7.285	7.110
19-20	14.060	14.285	
20-21	21.060	21.385	21.110
21-22	28.060	28.885	28.110
22-23	7.040*	7.285	7.110
23-00	14.060**	14.285	
00-01	7.040*	7.285	7.110
01-03	3.560	3.985	3.710

* Some other countries use 7.030

**Transcontinental QRP Net

For the First Sunday Schedule, try CW on the hour and SSB on the half hour.

In addition to the First Sunday frequencies, check these international QRP calling frequencies at any time: CW: 1.810, 10.106/20, 24.900, 50.360
SSB: 24.985, 50.385

For more information on the QRP ARCI, contact William Harding, K4AHK, 10923 Carters Oak Way, Burke, Virginia 22015.

Most of the winter and spring wind damage to my antennas has been repaired. So, after several months of forced inactivity, I'm back on the air (the code skills a little rusty; guess that just means I need a lot of practice!). I can usually be found on my favorite band, 30 meters. Generally a quiet band, 30 m is turning into a goldmine for DX and is an excellent band for the smaller station. So, if you hear me out there, give me a call.

Keep the mail coming folks. I appreciate your input. Next month I'll be sharing this space with Pete Elmendorf, KB2OR, who will be commenting on some other aspects of the "small station".(WB9TBU)

1986 ARRL DX CONTEST
HIGH CLAIMED SCORES

W1OD & KR1R, ARRL Contest Branch

PHONE

SINGLE OP, ALL BAND

K1KI	1,885,482
K3ZO	1,510,758
N2FB	1,289,238
KT3M	1,273,440
K1DG	1,242,774
W9RE	1,241,280
N2LT	1,237,698
WX4G	1,217,640
K5ZD/1	1,134,027
W6MKB	1,095,687
N2RM	1,074,840
KM6B	1,067,256
K4VX (KR0Y,opr)	1,028,160
N2MM	978,600
NR5M	961,740
K1VR	909,468
AK1A	793,914
K3ZJ	768,687
N6AW	762,570
W8ZF/4	761,388
K1IU	721,752
W2RQ	721,746

SINGLE OP, LOW POWER

VE1NG	720,390
VO1MP	315,882
W3UJ	286,836
W2TZ	233,070
N5AW	178,416
KG1D	117,558
WA5OYU	106,533
W3ARK	102,600
N6ADK	88,275
K4JHT	85,344
N1CC	72,000
W9KTB/4	65,205
WB3BRF	61,800
WA0NOK	60,903
W7YAO	60,066

MULTI OP, SINGLE TX

K3TUP	1,323,630
K3WW	1,320,948
WB8JBM	1,204,818
WB2ULI	1,020,672
N4KG	968,175
WA8DXG	847,206
KU2Q	794,508
K2NJ	723,216
WA3SPJ	686,718

MULTI OP, TWO TX

KX4S	2,457,450
N5AU	2,391,168
N6ND	1,982,760
N3RS	1,945,026
K3OO	1,754,994
N1AU	1,485,960
K3II	683,865

MULTI OP, MULTI TX

K2BU	3,757,890
W3LPL	3,019,302
W3GM	1,923,108
K3ZZ	1,019,424
K1EA	903,600
KM1C	901,167
KY1H	382,374
W3UM	51,102

CW

SINGLE OP,ALL BAND

W3GRF (KODQ,opr)	1,487,400
KC1F	1,413,864
K3ZO	1,393,728
N2LT	1,383,936
K1AR	1,335,084
K3WW	1,198,773
K1DG	1,127,973
W3BGN	1,096,416
K3KG (K4FJ,opr)	1,060,884
K5NA	1,048,605
K1BW	1,047,033
K5ZD/1	933,720
WX4G	873,705
W3XU	872,460
W8ZF/4	863,328
NQ4I	841,122
WOJLC	795,495
W3VT	755,568
VO1MP	592,200
W8LNO	587,292
AA1K	569,829
K3ZZ	554,508
K3TUP	519,651

SINGLE OP, LOW POWER

VO1MP	592,200
W2TZ	339,636
KS1J	173,052
K9UIY	126,360
W3HVQ	125,367
K4MF	122,670
K1VUT	107,238
KR8Y	105,216
WB2ABD	95,106
WD4AHZ	88,578
W3ARK	86,130

MULTI OP, SINGLE TX

N4WW	1,446,882
K1YR	1,226,016
N2MM	1,162,200
K4VX/0	1,119,525
KM1C	1,102,302
K1IU	947,232
N3AD	826,584
K2NJ	735,315
K1WA	732,555
N4KG	660,240

MULTI OP, TWO TX

W2REH	2,128,386
N5AU	1,851,696
K5LZO	1,308,066
K1XM	977,550
N2RM	953,451
KY1H	837,288
N6ND	755,802
K1RX	500,360

MULTI OP, MULTI TX

N2ME	2,985,156
W3LPL	2,828,595
K2TR	2,647,890
W3GM	2,170,746
K3OO	1,822,065
N3RS	1,724,514
N6RO	1,101,210
WOAIH/9	886,464
K1EA	689,520

1986 CQ 160 m CONTEST
HIGH CLAIMED SCORES

C.W.				SSB			
M/S	Score	Call	QSOs Mult.	M/S	Score	Call	QSOs Mult.
S	738,714	CT3BZ	734 108	S	279,441	LZ2CJ	838 61
M	557,520	GW3TDX	871 101	S	215,499	K1ZM	1038 87
S	512,072	W1CF	1005 121	M	204,120	KC8MK	1060 81
S	469,646	K5NA	947 127	S	203,948	VE3MFA	663 67
S	453,321	G3SZA	649 99	M	203,840	W3BGN	941 91
S	440,520	KT3M	955 120	M	194,560	GW3YDX	570 64
S	425,400	AA1K	1007 119	S	193,510	WB9HAD	1174 74
S	401,580	VE3BVD	889 90	M	186,187	OK3KFO	804 47
S	383,150	W1BIH/PJ2	689 79	M	173,920	K1NG	930 80
M	374,008	Y34K	806 76				
S	331,535	VE6OU/VE3	730 89	S	165,282	K9UWA	914 78
M	322,575	YU1EXY	599 85	M	163,030	W0CEM	1055 70
S	314,459	W3BGN	701 103	M	155,220	VP5AD	513 60
M	269,390	EA3VY	501 79	S	148,750	K8HA	948 70
S	262,341	K3ZO	753 103	S	145,350	WB3GCG	863 75
M	240,796	YT2R	533 74	S	132,480	W8ZV	800 72
M	235,750	W8JI	828 95	M	128,961	W8RA	827 69
S	231,070	HK1AMW	335 70	S	109,364	AA1K	585 76
S	230,230	VE1ZZ	277 110	M	107,586	VE3KRP	400 56
M	229,292	GW3IGW	513 76	M	104,676	N4FNB	794 61
S	228,390	EA9EU	332 69	S	98,528	VE3PN	423 48
M	222,754	N9MM	846 98	M	96,837	LZ2KPD	451 39
M	218,463	K3ND	663 103	M	89,311	NK7U	571 67
M	216,888	KH6RS	392 56	S	89,257	LZ1KOZ	410 41
S	214,132	I2UBI	536 67	M	85,839	K4MO	536 71
S	212,628	N5RZ	806 97	S	84,311	WB8SCD	670 59
S	211,688	KM3T	683 94	S	82,398	NW5E	609 62
S	209,700	N5DU	696 90	S	79,220	AA4NU	516 68
S	201,261	4X4NJ	295 72	S	79,002	W4TMR	565 57
M	201,178	W9RE	768 97	S	78,873	KY1H	565 66
S	199,500	N4PN	710 100	S	77,805	KR7X	523 65
M	196,280	UP1BWR	490 70	S	76,760	AA4MM	339 76
S	196,272	DF9ZP	501 72	M	75,010	N4NX	522 65
S	194,124	W8ZV	755 84	S	74,340	YV2IF	126 83
S	189,266	YU3EF	418 50	M	74,220	KB5DN	612 60
M	188,652	UR1RWX	557 82	M	73,602	KC3EK	612 54
S	181,818	YU3FA	446 74	S	73,160	W3TS	562 62
M	179,306	N5RS	705 92	M	71,136	YU1AAO	252 52
S	178,020	K4VX/0	757 92	M	70,058	YT2R	294 46
S	175,405	N4IN	490 103	M	68,343	KA8POW	549 57
M	171,738	N4SF	666 95	S	67,032	KE1VC	231 57
S	171,051	G4WQN	423 69	S	65,691	KA7AUH	420 63
M	170,332	N4RJ	641 97	M	64,448	AK1L	524 53
S	169,689	UG6GAW	318 57	S	64,400	W2FCR	503 56
S	166,252	W2FJ	539 89	S	63,830	WB9JKI	455 63
M	165,319	W7XR	548 77	S	63,504	WI4K	552 54
S	164,983	W3UM	571 91	S	60,690	I4ZNU	265 42
S	164,073	WB3AVN	566 91	S	60,552	N4IN	342 72
M	161,265	OK1KFO	469 65	M	60,192	KD8Z	455 57
M	160,834	PA3DQW	510 58	S	58,080	KN4S	443 60
M	157,368	K3RS	808 83	S	57,218	K7QO	409 61
S	156,936	VO1MP	318 79	S	57,053	NJ8N	439 59
S	156,480	LA2GV	476 60	S	56,628	WA1UJU	516 52
M	154,385	KY1H	650 77	M	56,007	K7DX	350 63
M	153,085	WB8AIH/8	779 85	S	53,970	UC2IDC	256 35
M	146,916	ZL3GQ	248 63	M	52,896	N2MM	400 57
M	146,586	OK3KFF	427 66	S	51,015	W3GOR	407 57
M	146,520	OK1KSO	400 72	S	50,368	K4DLI	338 57
S	143,299	VE3INO	386 73	S	50,266	4X4NJ	129 41

- 1986-
WORLD SSB CHAMPIONSHIP CONTESTS

- TOP-5 Claimed Scores -

15 Meter Single Op:

1.	KM5X	548	458,780
2.	OK1RF	518	441,600
3.	NR5M	540	378,950
4.	VE3BVD	404	255,640
5.	JG1FVZ/5N	333	223,720

15 Meter Multi-Op:

1.	K5LZO	521	384,665
2.	KH6DW	618	333,575
3.	KD5RW	298	134,050
4.	WD5GSL	228	114,270
5.	JA2YEF	131	15,865

20 Meter Single Op:

1.	DL6FBL	1180	1,801,150
2.	AH6GQ	1139	1,083,045
3.	N5TR	1349	1,007,745
4.	KA1GG	1193	916,380
5.	WB2ULI	720	793,860

20 Meter Multi-Op:

1.	K5LZO	1365	842,490
2.	KE9T	601	453,600
3.	NK7U	898	435,590
4.	KD5RW	576	266,900
5.	GW4EZW	216	109,620

40 Meter Single Op

1.	KE5CV	1261	626,355
2.	KE5IV	1151	537,930
3.	ZS6BPL	400	340,605
4.	K6HNZ	737	319,960
5.	KQ1F	839	295,665

CONTEST RULES

FRANK ANZALONE, W1WY

CQ Magazine

14 Sherwood Road, Stamford, CT 06905

Calendar of Events

*	July	1	Canada Day Contest
*	July	4-5	Clinton ARC Special Event
*	July	5-6	Venezuelan SSB Contest
	July	12-13	IARU HF Championship
	July	12-13	RSGB SWL Contest
	July	**19-20**	**CQ VHF WPX Contest**
	July	19-20	AGCW-DL QRP CW Contest
	July	19-20	Colombian Contest
†	July	19-20	SEANET CW Contest
	July	26-27	Venezuelan CW Contest
	July	26-28	MARC County Hunters CW
	July	26-28	"Armadillo" CW Run
	Aug.	2-3	ARRL UHF Contest
	Aug.	9-10	European CW Contest
*	Aug.	16-17	SEANET SSB Contest
	Aug.	16-17	SARTG RTTY Contest
	Aug.	16-17	New Mexico QSO Party
	Aug.	16-18	New Jersey QSO Party
†	Aug.	23-24	All Asian CW Contest
	Sep.	3-5	YLRL "Howdy Days"
	Sep.	13-14	European Phone Contest
	Sep.	20-21	CRRL Can-Am Contest
	Sep.	20-21	Scandinavian CW Activity
	Sep.	27-28	Scandinavian SSB Activity
	Oct.	4-5	IRSA World Championship
	Oct.	4-5	VK/ZL/Oceania SSB
	Oct.	11-12	VK/ZL/Oceania CW Contest
	Oct.	11-12	Pennsylvania QSO Party
	Oct.	12	RSGB 21/28 MHz SSB
	Oct.	12-13	Illinois QSO Party
	Oct.	15-17	YLRL Anniv. CW Party
	Oct.	18	RSGB 21 MHz CW Contest
	Oct.	18-19	Boy Scouts Jamboree
	Oct.	18-20	CARTG RTTY Contest
	Oct.	**25-26**	**CQ WW DX Phone Contest**
	Oct.	29-31	YLRL Anniv. SSB Party
	Oct.25	-Nv.1	Cayman Is. Pirates Week
	.Nov.	8	ALARA YL/OM Contest
	Nov.	8-9	European RTTY Contest
	Nov.	15-16	AOEC 160 Meter Contest
	Nov.	**29-30**	**CQ WW DX CW Contest**

IARU HF Championship

1200Z Sat. to 1200Z Sun., July 12–13

This is the old IARU Radiosport Contest with a new name. The operating time has been cut down to 24 hours and a few other minor modifications have been made, but basically the format is still the same.

It's a worldwide competition open to all amateurs on all six bands, 10 through 160 meters (no WARC bands).

Categories: Single operator, CW only, phone only and mixed mode. Multi-operator, single transmitter, mixed-mode only. Must remain on a band for at least 10 minutes at a time. (Exception: Only IARU member-society HQ stations may operate simultaneously on more than one band with one transmitter on each band/mode.)

Exchange: RS(T) and ITU zone. IARU HQ stations, RS(T), and official member-society abbreviation.

Points: Contacts within own zone or with an HQ station, 1 point. Contacts within own continent but different zone, 3 points. Contacts with different continents, 5 points.

Multiplier: Total number of ITU zones and IARU HQ stations worked on each band. (Note: HQ stations do not also count as a zone multiplier.)

Final Score: Total QSO points from all bands times the sum of the multiplier from each band.

Awards: Certificates to the top scorers in each category, in each state, ITU zone, and each DXCC country. In addition, achievement awards will be issued to stations making at least 250 QSOs or a multiplier total of 50 or more.

Entries with more than 500 QSOs are required to include a dupe sheet with their log. A three QSO reduction will be assessed for each duplicate QSO for which credit has been taken. Disqualification may occur if the overall score is reduced by 2% or more.

It is recommended that you check *QST* for more detailed information. A large SASE will get you official forms.

Mailing deadline for entries is August 13th to: IARU Headquarters, Box AAA, Newington, CT 06111.

CQ WW VHF WPX Contest

0000Z Sat. to 2400Z Sun., July 19–20

This is the second annual CQ World-Wide VHF Contest. Complete and detailed rules can be found in the April issue, but will be reviewed here briefly for those who do not have that issue.

Bands: All bands from 6 meters through 23 cm may be used (50, 70, 144, 220, 432, 902, and 1296 MHz).

Classes: 1. Single Operator—(a) all band; (b) single band; (c) all band low power; (d) single band low power (30 watts PEP). 2. Multi-operator—(a) all band; (b) single band. 3. Portable (temporary power source only). 4. FM only.

Exchange: Call sign and grid square (4 digits, e.g. FN20).

Scoring: One point per QSO on 50, 70, and 144 MHz; 2 points on 220 and 432 MHz. Four points on 902 and 1296 MHz. Stations may be worked once per band regardless of mode.

Final Score: Multiply total QSO points times the sum of different prefixes worked on each band.

A prefix is considered to be the three letter/number combination which forms the first part of the callsign. (A station in a call area different from that indicated in the call is required to sign portable. The location of the portable call determines the prefix.)

Awards: A large selection of certificates and plaques will be awarded to the top scorers in each class in all major geographic areas, North America, Europe, and Japan. And in each US state, Canadian province, European countries, and Japan call areas. Additional areas will be considered if returns justify.

Mailing deadline for logs is August 31st. They should be sent to: *CQ* VHF WPX Contest, c/o S.C.O.R.E., P.O. Box 1161, Denville, NJ 07834. They can also be sent to: *CQ* VHF WPX Contest, 76 N. Broadway, Hicksville, NY 11801.

AGCW-DL QRP Contest

1500Z Sat. to 1500Z Sun., July 19–20

This is the summer edition of this QRP CW-only contest. The same station may be worked on each band, 1.8 through 28 MHz. There are five classes:

Class A—3.5 watts or less input. *Class B*—10 watts or less, for single operators. *Class C*—10 watts or less for multi-operators. *Class D*—QRO stations, over 10 watts input (may work only QRP stations). Class E—SWL's.

Class C may operate the full 24 hours; others must take a 9-hour break.

Exchange: RST, QSO no., and power input, i.e., (559001/5) (579001/QRO). Add "X" if using crystal control.

Scoring: QSO within own country, 1 point. With other stations in own continent, 2 points. With DX outside own continent, 3 points. (Double points if using crystal control.)

Multiplier: One for each DXCC country, and one for each DX station worked. Call areas in JA, PY, VE, W, and ZS count as separate multipliers.

Final Score: Total QSO points from all bands times the multiplier as indicated.

Awards: Certificates for the first places in each class and band.

Use a separate log sheet for each band, and a summary sheet showing the scoring, name and address, and other essential information. Mail logs within six weeks of the end of the contest to: Siegfried Hari, DK9FN, Spessartstrasse 80, D-6453 Seligenstadt, West Germany (include 1 IRC for a copy of the results).

Colombian Contest

0000Z Sat. to 2359Z Sun., July 19–20

There have been a few changes in the format of this year's contest. A close check of the rules is suggested.

It's still a worldwide type contest on all six bands, 1.8 through 28 MHz, CW only and SSB only.

Classes: Single operator, single and all band, multi-operator, single and multi-transmitter. (There is only one single band class, that used on 14 MHz.)

Exchange: RS(T) plus a three-figure QSO number starting with 001.

Scoring: *For non-HK's*—QSOs with HK's 10 points, with other countries 5 points, with own country 1 point.

For HK's—QSOs with other countries 10 points, with other HK's 5 points.

Multiplier: Number of different countries and HK call districts worked on each band.

Final Score: Total QSO points times the sum of the multiplier from each band.

Awards: Certificates to each station showing a minimum of 50 contacts, at least 10 of which are HK's on SSB or 5 if on CW, will receive a certificate. Plaques to the overall winning HK and non-HK in each class and each mode. Also for HK's in each call area.

Use a separate log sheet for each band. Indicate the multiplier in a separate column only the first time it is worked on each band. A summary sheet showing the scoring and other essential information and the usual signed declaration are also required.

Disqualification rules regarding taking credit for duplicate contacts, violation of rules and regulations, etc., will be strictly enforced.

Mailing deadline is August 30th to: L.C.R.A. Contest Committee, Apartado Aereo 584, Bogota, Colombia.

SEANET DX Contest

C.W.: July 19–20 SSB: Aug. 16–17

The object of the contest is to contact stations within the SEANET area. The same station may be worked once on each band. Cross-band or cross-mode contacts are not allowed. Multi-operator stations are limited to one signal during the same time period.

Classes: Single operator, single and all band, and multi-operator all band only.

Exchange: RS(T) plus a three-figure QSO number starting with 001.

Scoring: Stations outside SEANET area—(a) Contacts with stations within the NET area with the following prefixes: 20 points on 160; 10 points on 80 and 40; 4 points on 20, 15, and 10 (DU, HS, YB, 9M2, 9M6, 9M8, 9V1, V85).

(b) With stations in other NET areas: 10 points on 160; 5 points on 80 and 40; and 2 points on 20, 15, and 10.

(c) Contacts between stations outside the NET area have no value.

(d) Multiplier of 3 for each NET country worked.

Stations within SEANET area: (a) Contacts with stations outside NET area—10 points on 160; 5 points on 80 and 40; 2 points on 20, 15, and 10.

(b) Between stations within the NET area: 6 points on 160; 3 points on 80 and 40; 1 point on 20, 15, and 10.

(c) Contacts with stations in own country have no value.

(d) Multiplier of 2 for each NET country worked, 3 with country outside NET area.

Final Score: Total QSO points times the sum of the multiplier.

Awards: The three highest scoring stations on CW and on SSB will receive plaques. There are other awards for each class.

Entries must be received no later than October 20th by the CEBU Amateur Radio League, P.O. Box 304, Cebu City, Philippines 6401 (Att: SEANET Contest).

SEANET Area Prefixes: A35, A51, AP, BV, BY, C21, DU, FK8, FR, FW8, HL, HS, H44, JA (etc.), JD1, KA, KC6, KH2-3-4-5-6-7-8-9-0, KX6, P29, S2, S79, T2, T3's, VK (all), VQ9, V85, VS6, VU2, VU7, XU, XV5, XW8, XX9, XZ2, YB, YJ8, ZK, ZL (all), 3B6-7-8-9, 3D2, 4S7, 5W1, 8Q7, 9M2-6-8, 9N1, and 9V1, 1Z9.

County Hunters CW Contest

0000Z Sat. to 0200Z Mon., July 26–28

The MARAC County Hunters Net is sponsoring this year's contest. Mobile and portable operation from less active countries is welcome and encouraged.

The same station may be worked on each band, and mobile and portables from each county change for QSO credit. Mobiles operating on a county line give and receive one QSO number, but each county is valid as a multiplier. (Mobile and portables must identify by signing M or P after their call.)

Exchange: QSO no., category (M or P), RST, county and state for US stations, province or country for others.

Scoring: QSO's with fixed stations are worth 1 point, with mobile and portables 3 points.

Multiply total QSO points by sum of US counties worked for final score.

Frequencies: 3575, 7055, 14065, 21065, 28065. On 20 and 40 mobile and portables should call CQ below the suggested frequency. Fixed stations use above the suggested frequencies.

Awards: Certificates to winners as follows:

F—Fixed or fixed portables in each state, province, and country with 1000 or more total score.

P—Portable in each state operating from a county other than its normal location with 1000 or more score.

M—Mobile in each state operating from 3 or more counties with a minimum of 10 QSOs from each county.

Plaques to the top-scoring mobile, portable, and fixed station in the US meeting the above requirements.

Mobile and portables who change states calculate their score for a state certificate, and total score for plaque.

A summary sheet showing the scoring is requested and a check sheet of counties worked is a must for entries with 100 or more counties.

Mailing deadline for logs is September 1st to: Jerry Burkhead, N6QA, 7525 Baltic St., San Diego, CA 92111.

Armadillo CW Run

0000Z Sat. to 2400Z Sun., July 26–27

This is the CW section of the Armadillo Run sponsored by the Texas DX Society. Like the SSB section on May 3–4, it follows the same format used by the County Hunters contest. Check their rules in this issue for exchange, scoring, etc.

Don't forget to look for the new Armadillo County created to commemorate the Texas Sesquicentennial. (Contacts with this county are worth 5 times QSO points.)

There will be special Armadillo Run stations on between 1300Z and 0100Z each day to activate their assigned counties on 20 and 40 meters. Mobiles must be in each county a minimum of 30 minutes.

South Australia will also be celebrating its 150th anniversary, and they plan to run joint activities with the Texas "Run." Australian counties will also count as multipliers. Armadillo County in South Australia counts 10 times QSO points and VK5 countacts count 5 times QSO points.

I strongly advise that you send a large SASE to Tom Taormina, K5RC, 12610 Barbizon, Houston, TX 77089 for more detailed information and a list of the many awards that will be available to winners.

Logs must be received within a month after the end of the contest and go to: The Texas DX Society, 350 Magnolia Bend, New Caney, TX 77357.

European DX Contest

C.W.: Aug. 9–10 Phone: Sept. 13–14
0000Z Saturday to 2400Z Sunday

This is the 31st annual contest sponsored by the DARC. The activity will be between European countries and the rest of the world on all bands 3.5–28 MHz.

Following are updated rules, including two new features. U.S. states will now count as a multiplier, and QSO dupe sheets will now be required for each band on which 200 or more contacts are made.

Only 36 hours out of the 48-hour contest period may be used by single-operator stations. The 12 hour off periods may be taken in one, but not more than three, periods anytime in the contest and must be indicated in the log.

Classes: Single operator and multi-operator single transmitter, both all bands. Multi-operator stations are allowed to change bands one time only within a 15 minute period. A quick band change and return is allowed to work a new multiplier.

Exchange: RS(T) plus a QSO number starting with 001. In addition, W/K stations will include their state (i.e., 599011 MA).

Scoring: One point per QSO and one point for each QTC reported.

Multiplier: The multiplier for non-European stations is determined by the number of European countries worked on each band (WAE list). Europeans will use the ARRL DXCC list. In addition, each call area of the following countries will be considered a multiplier: JA, PY, VE/VO, VK, ZL, ZS, and UA9Ø. *Each W/K state will also be considered a multiplier.*

The multiplier on 3.5 MHz may be multiplied by 4, on 7 MHz by 3, and on 14/21/28 MHz by 2.

Final Score: Total QSO points, plus QTC points, times the sum total multiplier from all bands.

QTC Traffic: Additional point credit can be realized by making use of the QTC traffic feature. A QTC is a report of a confirmed QSO that took place earlier in the contest and was later sent back to a European station. It can only be sent from a non-European station back to a European. The general idea is that after a number of Europeans have been worked, a list of these stations can be reported back during a QSO with another station. An additional, one point credit can be claimed for each station reported.

A QTC contains the time, call, and QSO number of the station being reported (i.e., 1300/DL2DN/134, which means that at 1300Z you worked DL2DN and received #134).

A QSO can be reported only once and not back to the originating station.

A maximum of 10 QTCs to a station is allowed. The same station may be worked several times to complete this quota. Only the original contact, however, has QSO value.

Keep a uniform list of QTCs sent; (3/7 indicates that this is the 3rd series of QTCs sent and that 7 QSOs are being reported).

Awards: Certificates to the top scorers in each class in each country and areas listed in the multiplier. Continental leaders and stations having at least half the score of the continental leader will also be honored.

Disqualification: Violation of the rules of the contest, unsportsmanlike conduct, or taking credit for excessive duplicate contacts will be deemed sufficient cause for disqualification.

Logs: It is suggested that you use the official DARC or equivalent forms. Figure 40 contacts to the page, and use a separate sheet for each band. A large-size SAE and IRCs will get you a supply.

All entrants are now required to submit cross-check dupe sheets for each band with 200 or more QSOs. A penalty of three contacts will be deducted for each duplicate QSO that is removed by the committee.

Mailing deadline is September 15th for CW and October 15th for Phone. All entries go to: The WAEDC Contest Committee, P.O. Box 1328, D-8950 Kaufbeuren, West Germany.

WAE Country List: C31, CT1, CT2, DL, EA, EA6, EI, F, FC, G, GD, GI, GJ, GM, GM Shetland, GU, GW, HA, HB9, HBØ, HV, I, IS, IT, JW Bear, JW, JX, LA, LX, LZ, M1, OE, OH, OHØ, OJØ, OK, ON, OY, OZ, PA, SM, SP, SV, SV Crete, SV Rhodes, SV Athos, TA1, TF, UA13456, UA2, UA Franz Josef Land, UB5, UC2, UN1, UO5, UP2, UQ2, UR2, Y2, YO, YU, ZA, ZB2, 1AØ, 3A, 9H1, 4U1 Geneva, 4U1 Vienna.

New Jersey QSO Party

2000Z Sat. to 0700Z Sun. Aug. 16–17
1300Z Sun. to 0200Z Mon. Aug. 17–18

This is the 27th annual party sponsored by the Englewood ARA. Phone and CW are part of the same contest, the same station may be worked on each band and mode, and NJ stations may contact in-state stations for QSO and multiplier credit.

Exchange: QSO no., RS(T), and QTH. County for NJ, ARRL section or country for others.

Scoring: NJ stations score 1 point for W/K and VE/VO contacts, and 3 points for DX. Multiply total by ARRL sections worked (maximum of 74). KP4, KL7, KH6, etc., are 3-point contacts and section multipliers.

Out-of-state stations multiply total NJ QSOs by number of NJ counties worked (maximum of 21).

Frequencies: 1810, 3535, 3900, 7035, 7135, 7235, 14035, 14280, 21100, 21355, 28100, 28610, 50–50.5, and 144–146. Try phone on even hours, 15 on odd hours, and 160 at 0500 UTC.

Awards: Certificates to the top scorers in each NJ county, ARRL section, and DX country. Second-place awards if four or more logs are received from that section. Also Novice and Tech., and mobile awards.

Use UTC time, indicate the multiplier only the first time it is worked, include a QSO check sheet, and include a summary sheet showing the scoring, etc. Send a large SASE if you wish a copy of the results.

Stations planning activity in NJ are requested to advise the EARA by August 1st so that coverage of all counties may be planned.

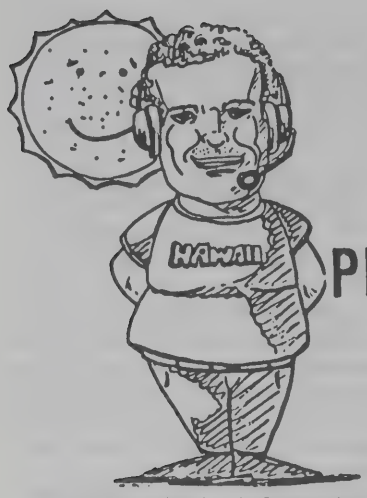
Logs must be received no later than Sept. 13th and go to: Englewood ARA, P.O. Box 528, Englewood, NJ 07631-0528.

SARTG RTTY Contest

Three Periods GMT
0000–0800 & 1600–2400 Sat., Aug. 16
0800–1600 Sun., Aug. 17

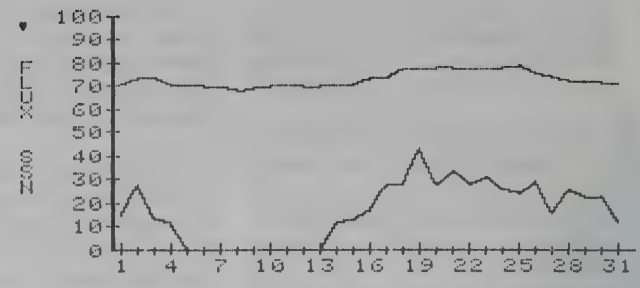
This is the 16th annual contest sponsored by the Scandinavian Amateur Radio Teletype Group. Use all bands 3.5 through 28 MHz. The same station may be worked on each band for QSO and multiplier credit.

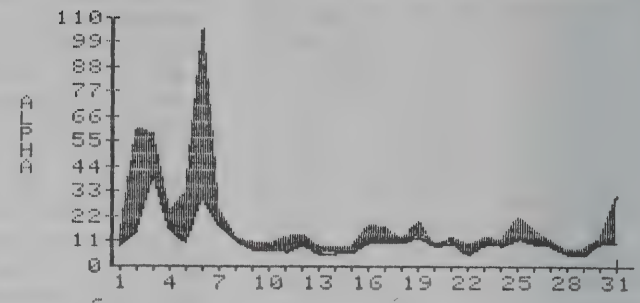
Classes: Single operator, multi-operator single transmitter, and SWL.

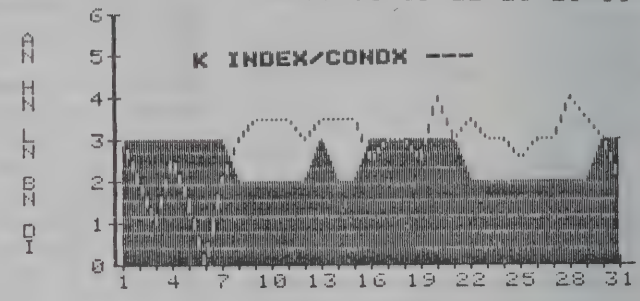


KH6BZF PROPAGATION REPORT

Lee Wical, KH6BZF







Statistical information is compiled by KH6BZF and processed on a computer by VE3BMV.

The first diagram shows the value of solar flux (top curve) and SSN - sunspot number (bottom curve). The Y axis and scale is the same for both. The X - axis is calibrated in days of the month.

The second diagram shows variation of the Alpha Index for each day. The dark shaded area shows increases, while the white area shows decreases in the value of the Alpha Index for each day.

The third diagram shows the value of the K Index (shaded area) on a scale from 0 to 6. The dotted line represents the propagation quality where the scale is: from 5 = Above Normal to 1 = Disturbed.

FORECAST:

BEST HF CONDX: JUL: 1 - 3, 6, 13 - 18,
BEST VHF CONDX: JUL: 4, 23, AUG: 12

MAY 1986

MAY '86	CONDX	SOL FLUX	LEVEL	SSN#	GEOMAGNETIC LEVEL	ALPHA K INDEX	INDX NOTES
01	LN	071	VY LOW	15	QUIET-UNSETTLED	08/12	K=3 RGN 4727(5) N07, W64
02	LN-DIS	073	VY LOW	28	ACTIVE-MAJOR STORM	15/60	K=3 RGN 4727(6) N07, W76; 4728(2) N06, W55
					Distrubed due to combo of Coronal Hole & Disappearing Filament. Aurora.		
03	DIS	073	VY LOW	13	MAJOR STORMINESS	40/58	K=3 RGN 4728(3) N06, W70
					K===8---DISTURBED BETWEEN 0300-0900 UTC		
04	LN-BN	070	MODERATE	11	QUIET-MINOR STORM	15/24	K=3 RGN 4727 Rotated off West Limb
		A Satellite Proton Event in progress between 04/1255-04/1705 UTC; Proton Flare @ 04/1007 UTC					
05	LN-DIS	070	VY LOW	00	ACTIVE-MAJOR STORMINESS	10/33	K=3 NO SUNSPOTS
06	VY DIS	069	VY LOW	00	MAJOR STORMINESS	30/105	K=3 NO SUNSPOTS/N-TYPE Flare behind West Limb
							K=8 @ 06/0300-0900 UTC--AURORA
07	BN	069	VY LOW	00	MAJOR STORM-ACTIVE	17/24	K=3 NO SUNSPOTS
08	LN	068	VY LOW	00	UNSETTLED	11/12	K=2 NO SUNSPOTS, FLUX MINIMUM
09	HN-LN	069	VY LOW	00	UNSETTLED-QUIET	07/10	K=2 NO SUNSPOTS
10	HN-LN	070	VY LOW	00	QUIET-UNSETTLED	07/10	K=2 NO SUNSPOTS RGN 4724 to return @10/2100
11	HN-LN	070	VY LOW	00	QUIET-UNSETTLED	06/13	K=2 NO SUNSPOTS RGN 4725 to return @11/0100
12	LN	069	VY LOW	00	UNSETTELD-QUIET	09/14	K=2 NO SUNSPOTS
13	LN-HN	070	VY LOW	00	QUIET-UNSETTLED	05/08	K=3 NO SUNSPOTS
14	LN-HN	070	VY LOW	12	QUIET-UNSETTLED	06/08	K=2 RGN 4729(2) N03, E70
15	HN-LN	071	VY LOW	13	QUIET	06/08	K=2 RGN 4729(3) N03, E57
16	LN-BN	073	VY LOW	17	QUIET-UNSETTLED	10/18	K=3 RGN 4729(7) N03, E48
17	LN	073	VY LOW	28	UNSETTLED	10/16	K=3 RGN 4729(6) N03, E35; 4730(2) N05, E65
18	LN	077	VY LOW	28	UNSETTLED	10/12	K=3 RGN 4729(6) N03, E21; 4730(2) N05, E51
19	LN-BN	077	VY LOW	43	UNSETTELD	13/20	K=3 RGN 4729(6) N04, E13; 4730(2) 4731(5)
20	HN	078	VY LOW	28	QUIET-UNSETTLED	08/09	K=3 RGN 4729(1) N04, W00; 4730(0) 4731(7)
21	LN	077	VY LOW	33	ACTIVE	10/13	K=3 RGN 4729(1) N04, W13; 4731(12) N04, W40
22	HN-LN	077	VY LOW	28	UNSETTLED-QUIET	05/09	K=2 RGN 4729(1) N04, W29; 4730(0) 4731(7)
23	LN	077	VY LOW	31	UNSETTLED	09/13	K=2 RGN 4729(1) N04, W42; 4731(10) N07, E13
24	LN	078	VY LOW	25	UNSETTLED	08/11	K=2 RGN 4731(15) N07, W01
25	LN-BN	079	VY LOW	24	UNSETTLED	12/22	K=2 RGN 4729(0) N04, W56; 4731(14) N08, W15
26	LN	075	VY LOW	29	UNSETTLED	09/15	K=2 RGN 4729(0) N04, W81; 4731(19) N08, W29
27	LN	073	VY LOW	16	UNSETTLED	08/11	K=2 RGN 4729(0) Over Limb 4731(6) N08, W43
28	HN	072	VY LOW	25	UNSETTLED	05/07	K=2 RGN 4731 N08, W61; 4732 S01, W33
29	HN-LN	072	VY LOW	22	UNSETTLED	05/08	K=2 RGN 4731 N08, W74; 4732 S01, W46
30	LN	071	VY LOW	23	UNSETTLED	10/13	K=3 RGN 4731(1) N08, W88; 4732(2) S01, W60
31	LN-DIS	071	VY LOW	12	UNSET-ACT-M.S. LVLS	10/31	K=3 RGN 4732(2) S01, W71 K=5 @31/0300-0900

TUNING IN ON CRIMINALS

David Wharton

They are truck drivers, teachers, engineers and bankers who spend their Friday and Saturday nights hiding on rooftops and in parked vans, waiting and watching for car thieves, street robbers and dope dealers.

They are 45 Amateur Radio enthusiasts who put more than $25,000 of their electronic communications equipment to work helping the Los Angeles Police Department's Van Nuys Division stake out some of the community's worst crime areas.

The members of the Van Nuys Area Hamwatch perform tedious surveillance work that police would not otherwise have the manpower to do. They get none of the glamour or thrill of car chases and arrests; once they have witnessed a crime from their hidden observation posts, they radio to patrolmen waiting nearby in unmarked cars and leave the rest to police.

But the 4-year-old group does get results. During the first three months after the police started keeping records on Hamwatch, the citizen stakeouts led to 36 felony arrests, 22 misdemeanor arrests and the recovery of two stolen cars.

Hamwatch members agreed to discuss their program only on condition that their names, communities, professions and the locations of past stakeouts be kept secret. (The names used in this story are fictitious.)

The members repeatedly said they fear revenge by criminals they have helped to arrest. Although they occasionally testify as witnesses in court, they worry about wider disclosure of their identities.

It is because of this fear that Hamwatch has operated in almost total anonymity, known only to police, who recognize it as one of the city's most effective citizen crimefighting organizations.

"It is the boring side of police work," said the group's leader, Jack. "All you may do is watch a parking lot for eight hours in the cold and nothing happens. What makes it all worth it is that when you're out there freezing your butt off and you see a guy break into a car in your neighborhood you can get him caught and put away. That's the buzz."

Hamwatch stakeouts usually concentrate about 20 observers, along with three assigned patrolmen, in a five-block area. Before each stakeout, Van Nuys detectives brief the group on what to look for and deploy members to predetermined spots. (Local businessmen provide access to rooftops and offices with views.)

Once hidden away, members focus on their assigned section of territory - a parking lot or a small group of storefronts, for example. They have been trained by police to recognize suspicious behavior and take detailed descriptions.

Using their hand-held ham radios, they keep in constant contact with members at other locations, a central coordinator (usually Jack) and three patrolmen in unmarked cars.

"When it first started, I had my doubts; I thought the boredom would kill them," said Van Nuys Division Capt. Art Sjoquist. "But these people have had patience and enough success to keep them interested."

"What they save us in (stakeout) manpower is incredible," said Lt. Al Durer, head of Van nuys Division detectives.

Hamwatch began with 15 Van Nuys ham radio operators who went to police in the summer of 1981 with an idea that they believed would be an interesting use of their equipment, which ranged from $300 hand-held radios to $5,000 computer repeaters that allow members to talk to each other from anywhere in the city.

The group told police that their radios - which broadcast a stronger signal than police or CB radios - would make them especially effective in a stakeout situation, in which quick communication between posts is critical.

Van Nuys police agreed to give the idea a chance. Since then, Hamwatch has grown to include 43 men and two women. They range in age from 18 to 66 and come from as far away as Newport Beach to participate in the group's twice-a-week stakeouts.

Both Van Nuys police and Hamwatch members firmly deny there are any tinges of vigilantism in the civilian group.

No complaints on file

There are no complaints against the group on file with police, the district attorney's or public defender's offices or the American Civil Liberties Union. (The latter two had never heard of Hamwatch.)

One of the group's two female members, Elise, said she did not consider Hamwatch activities as police work, but merely what every citizen should do - watch for crime and call police.

Police records (released on the condition that the location of the stakeout be withheld) chronicle Hamwatch successes.

Several weeks ago, a Hamwatch observer saw four youths in a car cruising slowly through a shopping mall parking lot, stopping occasionally to peer into parked cars. The youths left that parking lot and continued to cruise through others along Ventura Boulevard, all the while being observed by members in consecutive stakeout positions, a third to a half-block apart.

As the youths continued to check out parked cars, members radioed to nearby officers, who closely followed the youths. Finally, an hour later and five blocks from where they had first been spotted, two of the youths were observed by Hamwatch members breaking into and driving away a 1984 Corvette. After a short chase, the suspects were captured.

Louie Crawford, 21, and Samuel Loving, 19, were charged with grand theft auto and are awaiting trial.

On the night of 31 January, police broadcast a detailed description of a man suspected in several street robberies in the Van Nuys area. The description was relayed to Hamwatch members already in position at a stakeout for street robberies and car thefts.

Several hours later, a man matching the description wandered into the stakeout area. After he walked past several hidden observers who

confirmed the match, police moved in and made an arrest.

Jimmy Watson, 22, was charged with two counts of robbery and was being held on $250,000 bail while awaiting trial.

A month earlier, on 30 December 1983, several Hamwatch observers spotted three men stealing a car battery. Officers moved in for what they thought would be a simple theft arrest. When the suspects were booked, it was discovered that one was wanted for crimes in several California cities and was a parole violator.

Tony Anguiano, 28, was charged with burglary from a motor vehicle and later sentenced to 180 days in Los Angeles County Jail.

Saved officers' time

These results impress police because they were earned without having to devote a full team of officers to the stakeouts.

"The main thing the Hamwatch does is to work on major crime-problem areas, and they have been pretty damn successful," Van Nuys chief of detectives Durer said.

He said that because Hamwatch members are trained observers, they make excellent witnesses in cases in which the three officers assigned to a stakeout cannot get to the scene quickly enough to see the crime themselves.

The three officers who most regularly work with Hamwatch, Sgt. Jim Flavin and Officers Bill McGee and Scott Aldrich, characterize the group's members as serious about their work and, above all else, patient. McGee and Aldrich studied on their own time to earn Amateur Radio licenses.

"The (members) are pretty well educated and common-sense people, and there's no hot dogging," Flavin said.

The group receives an average of two applications for membership each week, Jack said. Prospective members must already have a ham radio license and must pass an oral examination before a board of three police officers and one Hamwatch member.

"We're not looking for heroes," Jack said. "We're looking for committed citizens who don't have a chip on their shoulders. We're looking for people who are prepared to sit on a roof for eight hours."

After training, new members are closely supervised at stakeouts during the first six months. All members must attend three updating training sessions each year.

One of the most important parts of training is learning how to stay warm.

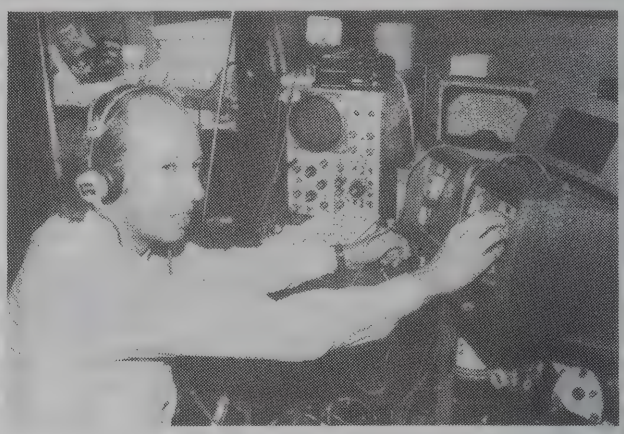
"You have a woolly hat and thermal underwear and two pairs of socks and a thermos of tea, because in winter it can get bitterly cold if you're sitting on a roof," Jack said.

Cold and boredom notwithstanding, optimism runs high among group members. There is talk of doubling the size of the group over the next few years.

"I've been a ham since the early 1930's, and my ham hobby became something of no interest to me because I'd done everything there was to be done," Frank said. "Then I heard about this. I get a satisfaction seeing these crumbs being put away. I wouldn't give it up for all the tea in China, and I don't think any of us would."

- Los Angeles Times; submitted by Ralph Swanson, WB6JBI, DEC, Orange County (Worldradio)

ARRL and AMSAT have submitted a joint proposal to have Astronaut Ron Parise, WA4SIR operate Packet Radio from the Space Shuttle. If the proposal is approved, Ron will use a modified TAPR TNC-2 terminal node controller, the Motorola 2-meter handi-talkie used by Owen Garriott and Tony England, and a lap-top computer. (CARTG)



Victor Mozarowski, VE3AIA with an ancient piece of test equipment - The Ear Sensitivity Tester at the RADIOSPORTING *laboratory. The test performed on VE3BMV's hearing revealed interesting facts.*

Gyuri Ilyes, HA5JI is proudly displaying his hardware: elevated 80 meter vertical with 5 radials, 20 m beam and his 2nd OP son Adrian. Gyuri is an active contester, an IRSA director and a representative for Hungary, also a member of HG5A club station.

CRRL-CARF Joint Comments on DOC Discussion Paper on a Possible Restructuring of the Amateur Service in Canada. (Copy courtesy of CRRL)

Before the
DEPARTMENT OF COMMUNICATIONS
Ottawa, Ontario K1A 0C8

Discussion Paper on a Possible Restructuring of the Amateur Radio Service in Canada)

To: The Director-General, Radio Regulatory Branch

JOINT COMMENTS OF
THE CANADIAN AMATEUR RADIO FEDERATION, INC.
THE CANADIAN RADIO RELAY LEAGUE, INC.

A. Introduction

The Canadian Radio Relay League, Inc. and the Canadian Amateur Radio Federation, Inc., herein referred to as the "national organizations", principal representatives of over 20,000 radio amateurs licensed by the Department of Communications, respectfully submit these joint comments in response to the Department's Discussion Paper on a Possible Restructuring of the Amateur Radio Service in Canada.

Over the past six months, the national organizations have been flooded with comments on the Discussion Paper. These comments have come from individual amateurs and from amateur radio clubs and groups. The national organizations found that there was widespread support for the Department's objectives. However, the comments seemed to offer as many ways to reach those objectives as there were comments. For this reason, the national organizations used the comments first to identify the needs of the amateur radio community. Then, mindful of those needs, the needs of the Department, the Department's own proposals, and suggestions from the amateur radio community, the national organizations proceeded to develop a proposed structure that would meet all needs and incorporate the best of the proposals and suggestions.

In a restructured Amateur Service, the needs of the amateur radio community would include the following:

1. More and younger radio amateurs,
2. High standards for all classes of certificate,
3. Strong incentives to upgrade to the highest-class certificate,
4. A continuing role for Morse code,
5. A continuing stress on the experimental side of amateur radio: this would preclude any ban on the use of homebuilt or modified commercial transmitting equipment,
6. Compatability with structures in jurisdictions with which Canada has reciprocal operating agreements, and
7. Viability in the eyes of the international amateur radio community.

The needs of the Department would include the following:

1. Ease of entry into the Amateur Service,
2. Simplicity, resulting in less administration and lower costs,
3. Recognition of the fact that many amateurs and prospective amateurs are more interested in "communicating" than in the technical aspects of amateur radio, and
4. A structure that will remain viable into the next century.

The national organizations believe that the structure described below will meet these needs.

B. Proposed Structure

Outline:	Comments:
The entry-level certificate would be called Certificate B or the Basic certificate.	Many amateurs suggested reversing the nomenclature used in the Department's Discussion Paper, reserving Certificate A for the highest-class certificate. The term Basic is psychologically good. It suggests something to build on.
There would be a written test based on 40 hours of study of basic electronic theory, basic electronic circuits, receiving and transmitting systems, antennas and propagation, station setup and operation, and interference prevention, as well as a regulations test.	There would be no code test. This would make the certificate attractive to computer buffs and others who may view Morse code as interesting but old-fashioned. 40 hours of study would ensure the high standards that everyone is seeking in an entry-level certificate. The written tests would likely be multiple-choice. They could be administered and marked by accredited amateurs. Receiving and transmitting systems would involve study of block diagrams only. MF-HF equipment, antennas, propagation, regs, etc. would be studied to give holders of Certificate B an overview of amateur radio, in the expectation that every holder of Certificate B would eventually upgrade. Station setup and operation would head-off problems on the air.
Holders of Certificate B would be permitted to use all modes on amateur frequencies above 30 MHz.	It would be important to give holders of Certificate B access to the 144-148 MHz band to ensure that these amateurs come into contact with good operators who would serve as role models. Limiting these amateurs to 220 MHz and above, for instance, would create a "ghetto" where they would likely develop operating procedures at variance with established practice.
Holders of Certificate B would be limited to 100 watts to the final stage of the transmitter, and would not be permitted to become licensees of repeater or remote-base stations.	Power might be expressed in terms of "watts output". "Watts output" is more common on VHF-UHF bands. 100 watts input (about 50 watts output) permits the use of most commercially-built VHF-UHF transceivers currently on the market. It is also adequate power for satellite communications. "Repeater stations" would not include "digipeaters" which do not transmit and receive simultaneously.
Homebuilt or modified commercial transmitting equipment would be permitted.	Amateur radio publications constantly encourage building and modifying equipment, including transmitting equipment. It is an amateur radio tradition. A rule specifying commercial transmitting equipment, even for holders of Certificate B, would violate that tradition. It would suggest to newcomers that knowing how to build or modify equipment was not important. It would downgrade the Canadian Amateur Service in the eyes of the international amateur radio community. Even though few amateurs would take advantage of being able to build or modify transmitting equipment, amateurs feel strongly that they should always have that option. As described, Certificate B would satisfy those who see a need for an attractive no-code entry-level certificate.
A 7 W.P.M. Morse Code Endorsement would be offered for Certificate B.	This could merit a separate certificate. However, such a certificate would have no value unless used in conjunction with a Certificate B. It would simply act as an endorsement on Certificate B and confer additional privileges. We propose to present it for what it is - an endorsement. 7 W.P.M. is psychologically good. With 12 W.P.M. for the highest-class certificate, it would preserve the 5 W.P.M. differential between the present Amateur and Advanced code requirements. It is 2 W.P.M. faster than what is required for the U.S. Novice- and Technician-class licenses. It would justify more generous privileges.
Holders of Certificate B with	We would not favour special subbands

a Code Endorsement would be permitted to use radiotelegraphy and radioteletype on amateur frequencies below 30 MHz, and radiotelephony in the 28-29.7 MHz amateur band.	for holders of Certificate B with a Code Endorsement. Access to entire bands would ensure that these amateurs come into contact with good operators who would serve as role models. Such contacts would lead to greater proficiency in Morse code and promote further upgrading.
	Fourteen jurisdictions around the world give holders of entry-level certificates radiotelephone privileges in the 28-29.7 MHz band. Such privileges are being considered in the U.S. In this structure, such privileges would be a strong incentive for obtaining a Code Endorsement and joining the mainstream of amateur radio. They would also give beginning amateurs a sample of privileges available with the highest-class certificate and promote further upgrading.
Holders of Certificate B with a Code Endorsement would be permitted 250 watts input to the final stage of the transmitter. Homebuilt or modified commercial transmitting equipment would be permitted.	Another reason to obtain a Code Endorsement. 250 watts input permits the use of most commercially-built MF-HF transceivers currently on the market. It is more than adequate power for worldwide communications.
	Certificate B with a Code Endorsement would satisfy those who see a need for a slow-code Novice-type entry-level certificate. Requirements for Certificate B with a Code Endorsement would be in excess of requirements for a U.S. Technician-class license. This would permit operation in the U.S. under the Canada-U.S. Convention.
The highest-class and only other certificate would be called Certificate A or the Advanced certificate.	Two certificates: less administration and lower costs. Advanced is familiar terminology.
There would be a written test based on 20-30 hours of study of advanced electronic theory, receiver and transmitter circuitry, and	The Department proposed separating the written and code tests, issuing separate certificates. The entry-level written test with the 12 W.P.M. code test would have given full MF-HF radiotelephone privileges. This was one of the most common criticisms of the Department's proposal. First, it seemed illogical to grant full radiotelephone

antenna systems. There would be a Morse code test at 12 W.P.M.	privileges upon demonstrating proficiency in Morse code. Second, the privileges granted were so generous, there seemed to be no incentive to upgrade to the Department's highest-class certificate, Certificate C. To many amateurs, this left the ultimate quality of the Canadian Amateur Service in doubt. For these reasons, we would link the advanced written test and the 12 W.P.M. code test for Certificate A.
Holders of Certificate A would be permitted to operate all modes on all amateur bands using maximum legal power. They would be permitted to become licensees of repeater or remote-base stations.	Here is the incentive to upgrade.
A candidate for Certificate A with no previous accreditation would be permitted to try the written tests for Certificate B and the written and Morse code tests for Certificate A at a single sitting. Upon passing, the candidate would be granted Certificate A. There would be no time limit on the validity of any certificate.	There would be no requirement that a candidate for Certificate A have operated for one year, etc.
	This would simplify the Department's bookeeping.

C. Compatability with Present Certificates

1. Holders of the present Amateur certificate would be deemed to have the same qualifications and be given the same privileges as holders of Certificate B with a Code Endorsement, except that the right to use maximum legal power and any privileges permitted by an endorsement (such as 160-metre radiotelephone privileges) would continue.

2. Holders of the present Advanced certificate would be deemed

to have the same qualifications and be given the same privileges as holders of Certificate A.

3. Holders of the present Digital certificate would be given the same privileges as holders of Certificate B, except that the right to use maximum legal power would continue. Holders of the present Digital certificate would be deemed to have all qualifications for Certificate A except the code. They could qualify for Certificate A upon completion of the 12 W.P.M. code test.

The national organizations realize that some of the above recommendations may be difficult to implement. The Department may have no choice other than to give a Certificate A to every holder of the present Amateur certificate. The national organizations have a concern that this may cause resentment among amateurs who received their full privileges only after considerable extra study and a second examination. Whatever the Department decides, it will be important that no amateur, as a result of restructuring, lose any privilege that he or she previously enjoyed.

D. Conclusion

The national organizations offer this proposal as a point of departure for future discussions with the Department. There is a strong hope that the Department will involve the national organizations in every aspect of the development of a restructured Amateur Service, including the syllabus for examinations.

The Canadian Radio Relay League, Inc. and the Canadian Amateur Radio Federation, Inc. would like to thank the Department of Communications for its continued interest in the welfare of the Amateur Service, and for this opportunity to help shape its future.

Respectfully submitted,

Ronald Walsh, VE3IDW
President, The Canadian Amateur Radio Federation, Inc.

Thomas B. J. Atkins, VE3CDM
President, The Canadian Radio Relay League, Inc.

1986 May 10

Chuck Clark, K4ZN

TRAFFIC EMERGENCY

Route 3, Box 800, Moncks Corner, SC 29461

An Invitation

In April, this department mentioned the Blue Ribbon Committee set up by the ARRL Board of Directors to study the question of emergency traffic and how it is or is not handled. Tom Comstock, W5TC, is chairman, and Mike Riley, KX1B, is headquarters liaison. The other members are Thomas Greenhalgh, W1QYY, Peter Jordahl, K5GM, Bill Smith, W7GHT, Joel Kandel, KI4T, Gerald Boyd, KG6LF, Thomas Abernethy, WA3TAI, Michael Bruce, KA4BCM, and Richard Whiting, W0TN.

The committee was charged to review all aspects of ARRL involvement and to make recommendations to the board in the following areas:

1. Training of radio amateurs in how to conduct themselves during communications emergencies.

2. Management of amateur radio involvement during a communications emergency, at the local, state, regional, national, and international levels.

3. Reviewing existing systems and procedures, and recommending revisions or developing substitutes as appropriate, by which large volumes of record traffic can be handled swiftly and accurately, both within the united states and between this and other countries, fully utilizing the knowledge and technology available to the amateur radio community and with possible future developments in mind.

4. Reviewing existing systems and procedures, and recommending revisions or developing substitutes as appropriate, for determining and declaring the existence of a communications emergency, and for mobilizing such amateur radio personnel and material resources as may be appropriate.

The committee will be looking especially for measures that have been tried and found to work, but will be interested in new ideas as well, and also in things that have been tried and found not to work, so as not to repeat mistakes already made. If any reader has anything to contribute, the committee will be happy to receive it. Send your observations, comments, ideas, brainstorms to any of the members listed above.

Alerting a Net

Some disasters are self-alerting. Ominous clouds and rumbling thunder automatically send members of a weather net into their shacks to make reports and assist as needed. Huge billowing clouds of smoke invite amateurs to turn on their rigs to see if help is wanted. News reports of natural or man-caused disasters invite us to listen on appropriate frequencies to learn what is happening and to provide any desired communication. That's the way it should be. We should always bear in mind that the first reason for the amateur radio service, as given in section 97.1 (A) of the FFF rules, is to function "as a voluntary noncommercial communication service, particularly with regard to providing emergency communications," and so we should be ready to provide that service, and actively take measures to find out when our services are needed.

But there are many times when emergency communication is needed and the amateur community can not be expected to know unless told. A bulldozer digs up a telephone cable, interrupting communication to and from an airport. No weather reports, no emergency calls, unless the hams step in and help. The sheriff wants additional eyes and ears for a stakeout and is looking for volunteers, and would like to use amateurs because their 220 MHz signals aren't picked up by scanners or CB sets. A child is lost in the woods outside of town. How do we alert our people in such a case?

The usual way is the telephone. You can use the telephone tree, where the emergency coordinator calls several individuals, each of whom calls several others. A properly designed tree will provide alternate routings and procedures to make sure that everyone available is contacted even though some members may not be at home to answer the phone and make their listed calls. If the phone is not working, in most cases the only alternative is to send messengers.

This procedure can be speeded up considerably by using "smoke signals," where the one alerting the net dials a number, lets the phone ring once, hangs up, and then proceeds to call the next one on the list. When your phone rings once, it's a signal to get on the air. No time is wasted waiting for an answer or talking on the telephone, and so one can alert as many as 25 persons in five minutes. Additional "smoke signals" can be sent later if necessary to arouse anyone who missed the first call.

It's a great time saver, and also a money saver if one has metered phone service or if long-distance calls are involved. In many cases, however, an amateur could be active in several nets, so how do you find out which one needs you? Chances are you will know from the time of day or from other indications such as weather or news broadcasts, but even if you don't you should be able to find out quickly by listening to what is going on.

Alerting systems based on the telephone aren't much help when the phones are not working, as could well be the case in a communications emergency. Of course if you try to use the phone you will know that something is wrong, but how about those who don't happen to need to make a call? Is there some way to alert them?

How about someone devising some kind of automatic alarm system, a receiver operating on a specified frequency continuously listening for a special alarm signal and ringing a bell when such a signal is received? It could work like the auto-alarm receivers used on ships. Before making a distress call, the radio operator sends a series of 12 four-second dashes on 500 kHz with an interval of one second between the dashes, or a warbling tone alternating between 1300 and 2200 Hertz on a voice calling frequency, to cause receivers on other ships to alert operators to the distress call to follow. Anyone have any ideas?

With Amateur Radio going high-tech now, the problem of alerting may be solved soon, in two ways. First, with repeaters automatically controlled, there

won't be any need to alert operators, as the machines run themselves. At the end of the line, where the message is to be delivered, it will be simple to program the station's terminal unit to alert the operator. It looks like Amateur Radio could be on the verge of providing a kind of emergency service far superior to anything in the past.

CW in the U.S. Navy

In a previous column, we heard words from the chief of U.S. Air Force MARS on the need to maintain CW capability. The May issue of Traffic Call, bulletin of the Hit and Bounce net (Eastern U.S. and Canada, 7040 kHz, 1230Z), reported the answer made by an unnamed Navy captain to a question about the use of CW in the Navy today.

The captain said that the answer varies according to which fleet you look at. In the Pacific fleet, CW is not much used. The sixth fleet in the Mediterranean, yes. Our ships work with other NATO fleets and all of them emphasize CW. The thinking is that CW and a trained human ear would be able to penetrate jamming that would incapacitate high-tech gear. CW requires very narrow bandwidth and can concentrate high power into that bandwidth, punching holes through the interference. And a human operator can shift frequency to work around interference, as any of us know who have operated CW on a crowded band. In addition, coherent CW is a working technique, and enables bandwidth to be reduced to the barest minimum, both in transmitting and receiving, giving an advantage of as much as 20 to 30 decibels over SSB.

Everywhere in the Navy, however, you will find CW operators on one type of vessel. Every submarine has one or more. No, CW isn't dead, isn't even dying.

Ask the same question about the Soviet Navy, and the answer is much simpler: they emphasize CW throughout the whole navy. And you'll hear their CW if you listen much outside the amateur bands. It's easy to recognize russian CW because they have several letters that we don't have in our English alphabet. It's rather hard to copy, however, especially on an english typewriter! (K4ZN)

MONITOR MIR SPACECRAFT

With all the talk about a U.S. space station, it's easy to forget that the Soviet Union already has one. Mir, launched on February 9 of this year, can be sighted visually and heard easily just below the 2-meter band on 143.625 MHz. Other Frequencies reported to be in use are 121.75, 142.4, 142.417, 142.6, 143.144, 143.825, 166.0 and 192.04 MHz. Set your scanners! (CRRL News)

SANITY PREVAILED!

Kirkland, WA, City Council has voted to bring its ordinance governing amateur antennas and support structures into line with PRB-1. The City Council made the change on May 19, based upon the request of area hams, including Cliff Wells, KA7TVC. (See the story in our previous month's issue.)

Under the Kirkland zoning regulations then in effect, any antenna was considered a "structure" and required prior approval at a public hearing, payment of minimum $350 fee and issuance of a construction permit/variance. After Wells filed an appeal on his citation, the city sought legal advice on what course of action to take. A consulting law firm suggested that Kirkland revise its city code to bring it in line with the terms of the FCC preemption order on amateur radio antennas, support structures and stations: PRB-1. After little debate and argument, the city accepted the recommendation of the consulting law firm and voted in the change. Earlier, on April 4, the city had dismissed its action taken against KA7TVC, permitting him to keep his two meter antenna.

(Westlink Report)

CHERNOBYL ACCIDENT

Ukrainian hams risked prison to let the world know about the nuclear disaster in Chernobyl, Ukraine, two weeks ago. While TASS and other official Soviet News agencies tried to downplay the incident, amateurs in the Soviet Ukraine were saying otherwise. They were openly telling anyone who would listen about the true magnitude of the devastation caused by the explosion of the atomic power station. As reported by the free world press, these amateurs gave information freely to anyone willing to listen. They talked to the Dutch, the West Germans, the English, the Japanese and even to the Israelis. In one such instance, a Soviet ham apparently operating from an area very near the devastated Chernobyl plant reported to a Japanese ham of explosions, fire, massive casualties and the evacuation of thousands of residents from the stricken area.

His QSO was monitored in Amsterdam on Tuesday evening, April 29, by a Dutch SWL. He told the press that he had listened to amateur radio transmissions in which an English speaking man with a very heavy accent said "that there were many hundreds of dead and wounded," adding, "I'm here 20 miles from it and, in fact, I do not know what to do!"

Journalists in Europe and the mid-East - some of them hams, themselves - believe that these reports are authentic. Beam headings and the accents in the voices of those giving the information put the origin of these signals within the Soviet Union's borders.

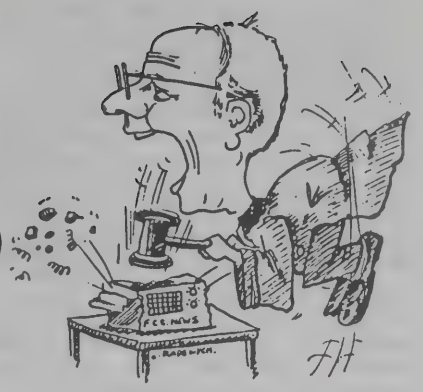
While amateur radio in the Soviet Union is considered a "sport" (Radiosport) and without an ARES type of structure to operate under, public service - in the form of letting the world know what was happening - came naturally. (Westlink Report)

Editor's note: The Soviet Union has the organization and structure to operate in an emergency situation, it is called DOSAAF. DOSAAF (The Union for Cooperation with the Armed Forces) is the umbrella organization for all technical sports. This organization is controlled by the government and acts only on government instructions.

Initially, the Soviet Union tried to conceal the Chernobyl nuclear accident even from their own people. We in the West knew more about it than the people living next to the nuclear plant. No precautions were taken to protect or evacuate the residents from the vicinity of the accident for at least the first few days following the accident. Amateurs from the Kiev area were reporting that all was normal, not knowing the true scope of the disaster.

Reports from visitors to Ukraine tell about a massive evacuation and the contamination of food and water supplies. Polish regions close to the Soviet borders had measured high levels of radiation contamination and the people were told not to drink milk or water from local sources. The situation in UC2 must be the worst of all areas because the winds were blowing radioactive materials in that direction for the first three days after the explosion. There was a lot more damage done than the Soviet officials are willing to admit.

FCC NEWS



BILL GRENFELL, W4GF

FCC PROPOSES EXPANDING PRIVILEGES AVAILABLE TO AMATEUR NOVICE AND TECHNICIAN CLASS OPERATORS (PR DOCKET 86-161). On 04/18/86, the Commission proposed to expand the present 28.1 to 28.2 MHz Novice-Technician band to 28.1 to 28.5 MHz with telegraphy use therein (A1A) limited to International Morse. J3E telephony (single sideband, suppressed carrier only) use by both Classes would be permitted from 28.3 to 28.5 MHz. All operation in the 28 MHz band by Novice and Technician licensees would be limited to 200 watts peak envelope power (PEP). Also proposed to be made available to Novice and Technician class operators are the 220-225 and the 1246-1260 MHz bands with Novice station power limited to 25 and 5 watts, PEP, respectively. FCC's Notice did not give any indication whether these were input or output powers. Current Rule Section 97.67 which is titled "Maximum transmitting power" does not make any input/output power distinction except in the current Novice subbands and for beacon operation (See FCC's Report and Order, PR Docket No. 85-23, adopted 02/26/86). The current limitation of use by U.S. amateur licensees of the 220-225 MHz band to ITU Region 2 only, would not be changed. Sections 97.85, 97.86 and 97.87 would be amended to require that "No amateur station at which the control operator or station licensee holds any Novice class privileges shall be in..." (repeater operation 97.85(i)); (auxiliary operation 97.86(e)); or, (beacon operation 97.87(f)). Comments on the proposal may be filed on or before July 16, 1986, and reply comments on or before August 20, 1986. Identify the docket number and send comments to: The Secretary, FCC, Washington, D.C. 20554. One copy will receive as much consideration as the formal requirement for an original and six, or the original and eleven which assures a copy for each Commissioner.

ON APRIL 21, FCC ADOPTED RULES MAKING "...AMATEUR STATIONS IN REPEATER OR AUXILIARY OPERATION MUTUALLY RESPONSIBLE TO RESOLVE INTERFERENCE BETWEEN THEM, EXCEPT WHEN ONE REPEATER OR AUXILIARY OPERATION IS COORDINATED AND THE OTHER IS NOT. "Then, the station engaged in the noncoordinated repeater or auxiliary operation has primary responsibility for resolving any interference." (PR Docket 85-22, News release on 04/25/86) "The Commission took this action to reduce the number of repeater interference disputes requiring FCC intervention. It decided against requiring coordination as a condition precedent to repeater operation and also decided against adopting more detailed repeater coordination rules. The Commission indicated that more comprehensive measures would not be considered unless the rules become effective 0001 UTC July 12, 1986." When this was written, the actual rules text was not available. A quote of the rule amendments will be in nest month's HIGHLIGHTS.

FCC IS RELUCTANT TO DRAW THE LINE AT MENTIONING PRICE AS A DECIDING FACTOR AS TO WHETHER AMATEURS ARE OR ARE NOT IN VIOLATION OF RULE SECTION 97.112 WHEN TALKING ABOUT SELLING EQUIPMENT ON THE AIR, according to an ARRL official. "It's best not to discuss price on the air." (From ARRL's "The FCC Rule Book," 5th Edition.) See last month's NEWS paragraph on an FCC monitoring station's citations of amateurs in a swap and shop net, which were cancelled.

STRONG SUPPORT FOR MORE TIMELY AND EFFECTIVE REMEDIES TO ELIMINATE MALICIOUS INTERFERENCE WAS EXPRESSED BY THE ARRL'S EXECUTIVE COMMITTEE REGARDING PROPOSED NEW SECTION 333 OF THE COMMUNICATIONS ACT ON HARMFUL INTERFERENCE, which FCC has asked Congress to add to the Act. However, the committee noted that there are significant risks associated with proceeding too quickly from administrative to criminal sanctions. Some FCC personnel also oppose going too quickly to court. However, budget constraints will likely produce the same results via a 40% reduction in enforcement activity of the Private Radio Bureau's Special Services Division which has thereby been forced to eliminate its Compliance Branch. See last month's NEWS for details on sanctions in proposed Section 333.

THE NATIONAL ASSOCIATION OF BROADCASTERS (NAB) HAS PETITIONED FCC FOR PARTIAL RECONSIDERATION IN DOCKET 86-87, PERTAINING TO THE FEDERAL PREEMPTION OF LOCAL ZONING OR OTHER REGULATION OF RECEIVE-ONLY DISHES. IT SUGGEST A STRONGER PREEMPTION STATEMENT THAN CONTAINED IN THE FCC'S REPORT AND ORDER.

BECAUSE, AS A MATTER OF POLICY, THE U.S. NO LONGER ASSIGNS FREQUENCIES IN THE 10.1-10.15 MHz BAND TO STATIONS IN THE FIXED SERVICE, THE AMATEUR'S DOMESTIC SHARING STATUS IS PRIMARY, according to the ARRL Letter of 04/11/86. It advises that, to preserve this status, "...we must avoid causing harmful interference to the Fixed Service at 10 MHz."

IT IS LEGAL TO OPERATE A HOME SIMPLEX AUTOPATCH TRANSMITTER BY REMOTE CONTROL FROM A MOBILE RIG IN AUXILIARY OPERATION PROVIDED the control link frequency is confined to 220.5 MHz and above (except 431-3, and 435-8 MHz), advises the ARRL Letter of 04/11/86. It continues with: "ARRL members are reminded that control via a 2 or 6-meter rig is illegal."

THE POSSIBILITY OF A RECIPROCAL AMATEUR OPERATING AGREEMENT WITH MEXICO WAS RAISED IN FRED MAIA'S 05/15/86 W5YI REPORT. He reports that FCC's Treaty Branch has not heard of that through governmental channels. It was to come up for discussion this Spring at a planned CITEL meeting -an inter-American group dealing with telecommunications. I can report that there have been numerous attempts to establish a reciprocal amateur operating agreement with Mexico since our first one, with Canada, became effective (May 15, 1952!).

CONCERNED "...THAT THE NEW DEFINITION OF EMERGENCY COMMUNICATIONS MAY HAVE MADE AN UNINTENDED CHANGE IN THE NATURE OF PERMISSIBLE AMATEUR EMERGENCY COMMUNICATIONS", FCC RESCINDED IT AND REVERTED TO THE PREVIOUS DEFINITION. Effective May 4, 1986, the restored rule is: "Section 97.3 (w) Emergency Communication. Any amateur radio communication directly relating to the immediate safety of life of individuals or the immediate protection of property." Also in its Order (in BC Docket 79-47), FCC clarified some points it had made on the separation of broadcasting and amateur radio: "Neither amateur operators nor broadcast stations may use amateur radio as a production or news gathering tool, but broadcast stations may retransmit normal amateur communications for whatever purpose they wish." FCC wrote, "...conveying news information ...could be done on amateur radio only when all these conditions are met: (1) the event is unforseen; (2) the news information is directly related to the event; (3) the event involves the safety of human life or the immediate protection of property; and (4) the news information cannot be transmitted by any means other than amateur radio because of the remote location of the originating transmission or because normal communications have been disrupted." These standards are not to be construed liberally, but literally. "Thus, if alternate communications facilities are available amateur radio may not be used to convey news information, even if the other elements are present..." (ARRL, 04/17/86).

IN ANSWER TO A RECENT QUERY REGARDING A LOCAL RADIO INTERFERENCE ORDINANCE, FCC

STATED THAT IT HAS THE AUTHORITY TO ESTABLISH MINIMUM PERFORMANCE STANDARDS FOR HOME ENTERTAINMENT EQUIPMENT. It noted that the rules in Part 97 "delineate the technical standards for operating Amateur Radio Stations. "State and local laws that either require amateurs to cease operation or pay fines when interference occurs conflict with our regulatory scheme. "This is especially true when amateurs, who are fully complying with or rules, must cease operation or operate at technical levels below those established in our rules in order to avoid state or local sanctions." (ARRL Letter, 04/25/86)

FCC HAS ISSUED THE NEW EXTRA CLASS WRITTEN ELEMENT QUESTION POOL, WITH A RELEASE DATE OF APRIL, 1986. FCC's instructions to the VECs direct that the new material must be used on exams no later than six months after its issuance (10/01/86). (ARRL Letter, 04/25/86)

"ANOTHER PETITION THREATENING THE 220 MHz BAND HAS BEEN FILED WITH THE FCC. "On April 15, the Association of Radio Reading Services, Inc., an organization providing reading services to the visually impaired via subcarriers on FM broadcast, filed a request for 500 KHz of the 220-MHz band for their service on the grounds that FM broadcast subcarriers are becoming unavoidable to them. "FCC has not yet assigned a file number to the petition, so comments would be premature." (ARRL Letter, 04/25/86)

FCC ANNOUNCED ON 06/02/86 THAT RULE SECTION 97.84 (d) (1) WAS AMENDED TO DELETE REFERENCE TO AMATEUR STATIONS HAVING CALL SIGNS PREFIXED BY THE LETTERS "WR". The licenses of all repeater stations licensed as such and identified by the WR prefix have expired.

THE CONGRESS OF THE UNITED STATES IS TRYING TO AGREE ON LEGISLATION EXTENDING PROTECTION AGAINST UNWARRANTED INTERCEPTION OF ELECTRONIC COMMUNICATIONS. H.R. 3378 identifies the House bill. The text now says "It shall not be unlawful...to intercept any radio communication which is transmitted...by a station operating on a frequency assigned to the amateur or by a citizens band or general mobile radio services (station)..." The Senate Subcommittee considering the companion bill was expected to hold hearings soon after the House has wrapped up its work. "...the common assumption that all of the RF signals pervading our homes are part of the public domain would no longer be valid, if the bill becomes law." (ARRL Letter, 05/23/86).

THE FCC DENIED A PETITION FOR RECONSIDERATION FILED BY THE ARRL WHICH ARGUED THAT A MANDATORY WAITING PERIOD WAS ESSENTIAL TO PRESERVING THE INTEGRITY OF AMATEUR EXAMS. The Commission stated that such a waiting period limited the flexibility of Volunteer-examiner coordinators (VECs) to administer examinations. Furthermore, VECs have many alternatives to assure retest integrity, including imposing their own waiting periods, using different or multiple sets of questions or keeping records to assure that persons being re-examined receive different sets of questions. (ARRL Letter, 05/23/86).

OFFICERS FROM THE DOUGLAS ARIZONA OFFICE OF THE FCC RECENTLY INVESTIGATED A REPORT OF ILLEGAL USE OF AMATEUR 220-225 MHz FREQUENCIES BY THE OPERATORS OF HOT AIR BALLOON RIDE BUSINESSES IN THE PHOENIX, ARIZONA AREA. Two separate groups were using handheld Amateur radio transceivers for communications between the hot air balloons and their chase cars. Each group was fined $750 for unlicensed operation. (ARRL Letter, 05/23/86).

ON 05/20/86 FCC ADOPTED A NOTICE OF PROPOSED RULE MAKING TO PROVIDE FOR USE OF F8E EMISSION IN AMATEUR BANDS AT 1240 MHz AND ABOVE. In its notice (PR Docket No. 86-207) FCC advises that: "Emission F8E is a radio signal in which the carrier is frequency modulated by two or more analogue voice channels." F8E is presently authorized in the 902-928 MHz amateur band. In its Order authorizing the emission in the 902 MHz band, FCC said "... authorization of F8E emission would serve the dual purpose of permitting amateur operators to experiment with a new transmission mode and to utilize the spectrum efficiently when several different channels of information must be transmitted simultaneously from one location to another." "The proposal responds to a petition for rulemaking filed by the Southern California Repeater and Remote Base Association (SCRRBA)." Comments should be filed with the Secretary, FCC, Washington, D.C., 20554 on or before August 15, 1986.

"AN OUT-OF-CONTROL MODEL (AIRCRAFT) CAN BE A DANGEROUS SAFETY HAZARD," THE FCC CAUTIONED IN A PUBLIC NOTICE. It has been informed that some radio control systems for surface craft use have been sold equipped for operation on 72-76 MHz frequencies specified for control of model aircraft! (W5YI Report, 06/01/86).

THE FCC RELEASED A NEW STUDY GUIDE FOR AMATEUR RADIO OPERATOR LICENSE EXAMINATIONS on May 6, 1986 (PR Bulletin 1035). It contains the question outline of the various topics covered in each of the Commission's written examination elements. It also released an amended element 4B (PR Bulletin 1035D, Extra Class question pool that corrected some typographical errors in the previous edition. Both are available without cost from: FCC, Personal Radio Branch, Washington, DC 20554. (W5YI Report, 06/01/86).

FCC CHAIRMAN MARK FOWLER HAS INDICATED HE IS INTERESTED IN ANOTHER TERM AS A COMMISSIONER, according to WESTLINK Report of 05/30/86. His term expires June 30. He has been Chairman since 1981. According to a trade newsletter, he has been encouraged to remain as head of the FCC by aides to President Reagan.

THE ARRL HAS PETITIONED THE FCC TO REQUIRE THE LABELING OF HOME ELECTRONIC EQUIPMENT RELATIVE TO ITS SUSCEPTIBILITY TO RADIO-FREQUENCY INTERFERENCE. The petition requests that the Commission require that a tag or notice be attached to home electronic devices or their instruction manuals to indicate whether the device incorporates shielding, filtering or circuitry designed to reduce its susceptibility to nearby radio transmitters. The tag or label also would warn the owner that the device may be subject to radio-frequency interference. (ARRL Letter, 05/09/86).

FCC HAS PROPOSED THAT USA PRIVATE LAND MOBILE SYSTEMS BE AUTHORIZED TO OPERATE IN THE 420-430 MHz AMATEUR BAND SOUTH OF THE CANADIAN BORDER IN THE DETROIT, CLEVELAND AND BUFFALO AREAS. The Notice (PR 86-163) proposes 25 kHz channeling and a maximum power of 110 watts output. Base stations must be located within 30 miles of the centers of these cities, with mobile stations confined to a 20-mile radius of its associated base station. Presently the band is not available to amateurs operating north of "Line A" in order to protect Canadian land mobile systems just north of the U.S.-Canadian border. Line A is approximately 70 statute miles south and parallel to the border. See amateur rule 97.3(i) for an exact definition of the line. "The Commission reminds amateurs that, south of Line A, amateur stations operate on a secondary basis, and may not cause interference to, or claim protection from, private land mobile operators, including those north of line A. "The Commission does invite comments on technical standards which minimize interference potential between the private land mobile service and radio amateurs. "The date for filing comments (was) June 23, 1986." (ARRL Letter, 05/23/86).

FORMERLY "RESERVED" DEFINITION RULE 97.3(k) WAS USED IN PR DOCKET 85-22 FOR THE DEFINITION OF "COORDINATED STATION OPERATION" AND IN PR 85-23 FOR THE DEFINITION OF THE "NATIONAL RADIO QUIET ZONE." "The Commission promises to rectify the mistake shortly." (ARRL Letter, 05/23/86).

A TV NEWS WEATHERMAN USING AMATEURS TO COLLECT AND FORWARD WEATHER DATA TO HIM ON A ROUTINE BASIS WAS INFORMED BY FCC THAT IT WAS IN VIOLATION OF RULE SECTION 97.110 WHICH PROHIBITS THE TRANSMISSION OF BUSINESS COMMUNICATIONS BY AMATEURS EXCEPT FOR EMERGENCY COMMUNICATIONS. However, where acting as severe weather reporters like in the National Weather Service's Skywarn System, which is activated by professional meteorologists when they see an immediate threat to life or property from an oncoming weather system, an emergency exists and, therefore, the amateur network falls under the exception provided in 97.110. (Westlink Report, 05/16/86).

END-OF-MONTH LICENSE TOTALS		
MARCH	1986	APRIL
39,225	EXTRA	39,405
98,765	ADVANCED	98,237
117,911	GENERAL	116,949
85,142	TECHNICIAN	85,022
79,744	NOVICE	79,306
420,787	TOTALS	418,917

Yuri,

I liked the humor of your April cover "beautify your neighborhood - put up a quad."

Our hobby is supposed to be fun and we need a bit of humor to keep it enjoyable.

Keep up the good work.

73, Allen Robbins, W7AM

Thanks Allen,

It's nice to know that someone else laughed at our April Fool cover. Those who can't laugh anymore must be in sad shape. Hi

Stay tuned for more Radio Funnies.

73, Yuri

Greetings Yuri,

I hope you had a good time in the WPX CW test. Conditions sure were great up on 20 m. I remembered to send the picture of my 40 m phased verticals just to prove that you don't have to spend a lot of money just to "Beautify your neighborhood." This is the main reason for my stab on 20 m with the QRP boys this year in the WPX.

Received my membership certificate today. I wonder if the IRSA is ready to enforce the rules of it's contest by listening to complaints from others as to operating in the DX window, using rigs with very poor signals, operating outside of the authorized sub-bands for their license class, etc. Sure would like to see someone who puts out the rules actually try to enforce them. Maybe if some of the guys get left out in the cold after all their hard work, things might get better. Congratulations should go to KRØY for the way he handled the intentional interference from K6KPS. Just goes to show that good operators are not only good at running strings of callers but are just good all around operators.

Guess now all we can do is wait and see how our scores will hold up.

73, Monte "Ron" Stark, KY7Y

Dear Ron,

Sorry about your "beauty" and I hope you will not be labelled as a "disgrace" to vertical builders, users and a aluminum manufacturers. Hi

Yes, we plan to enforce the proper operating manners, clean signals, etc. The best way to do this is to have reputable amateurs tell any offenders to clean up their acts. If they don't, then we would like to hear about it. The best way to do this is to make a tape recording of the incident and send it to the sponsors. If it is against the FCC or other regulatory bodies rules, send a copy to them too. If they receive more than one complaint against a particular station, they might do something about it.

We will consider disqualification based on your reports. The garbage on the bands is growing and we should try to prevent that. The technology to do this is here and we will write about it in our future issues. It would be a good idea to have the major clubs have their not so serious contesters act as intentional QRM and garbage fighters. Direction finding and signal "print" analysis can provide enough clues to identify the offenders.

Any volunteers? 73, Yuri

Dear Yuri,

I received the rules for the IRSA WRC and it seems that it will be a nice contest.

I found that I don't like one rule, the multiplier. I can not understand why every mobile station is a multiplier.

In my opinion rules of a contest must be clear and simple so that the score should depend on the skill of the operator and the conditions of propagation. So why ruin such a good contest with crazy multipliers?

I suggest you give more points for QSOs with mobile stations because they don't have many chances to be heard. But please don't give a multiplier for every QSO with a mobile; it is too much.

Moreover, I would like to point out that the new IARU Championship (old Radiosport) changed their rules and the Amateur Radio Society stations will be multiplier also. It is an example of bad and unnatural multiplier that disgusts me.

Thank you for your attention Yuri and please forgive me if I have been rude. Please send me a sample of the official WRC contest forms.

Congratulation on your activity and beautiful magazine.

Giorgio Beretta, I2VXJ
Italian Contest Manager

Dear Giorgio,

Not at all, and thank you for pointing out a possible weak point in the rules. It was never intended that each mobile station be counted as a multiplier. We changed the wording from "station" to "mobile group." One can only have a maximum of three multipliers for working stations from each of the mobile groups: land, maritime and aeronautical mobile. The main reason for the inclusion of those groups was to encourage the operation by specialized stations in remote areas of the world and to obtain some propagation data. Who knows, maybe we will have an operation from the space station one day. We are ready for them. I can especially se the maritime mobile making a serious effort in the contest.

About the IARU Championship multipliers, I can only say that our rules were developed by world champion contesters, while theirs, by officials who most likely don't operate in contests. Hope to see you in the WRC contest!

73, Yuri

Dear Yuri:

Thanks for the great magazine. RADIOSPORTING is the kind of magazine that has been long overdue in the Contesting and DXing community. It is the only magazine that I read cover to cover the same day it's received.

The station here is nothing spectacular, a TS930S and a SB200. Antennas consist of a 3 element tribander at 58 feet and assorted inverted Vees and slopers. I have not operated as much as I would like in the past year, but that Contesting and DXing bug is still strong as ever.

Yuri, keep up the great job on the magazine.

73 and DX, Pete Pel, VE7DLM

Dear Yuri:

Congratulations on an excellent new magazine! I've gone from receiving a complimentary issue, to subscribing, to extending my subscription (before the rates go up) all within a month. That should give you a clue as to my opinion of RADIOSPORTING.

Please extend my subscription for an additional year.

While I'm writing, let me offer something "different" for publication in your magazine - some serious poetry. I can remember seeing some nauseatingly corny poetry in ham magazines in the past, but that's about it. Obviously, if the poems weren't related to ham radio though, my effort would be a waste of everybody's time. The first poem, "Retread," relates what happened in April 1983 while I was erecting a repaired element for my 6 element parasitic vertical array for 40, 80, and (with limited gain) 160 meters (an earlier version of this poem was printed in the April 1986 Lincoln Amateur Radio Club newsletter, "Lincoln Log"). It was not until November of '85 that I felt like writing anything about this event.

In February of this year I submitted an early version of the poem, along with two other of my poems, to the Waverly Arts Foundation for their annual poetry contest. On February 23 (just after the CQ WW 160 phone contest ended - which I entered) the poetry contest awards were presented. I won second place!

Immediately after the awards ceremony it was time for me to go to work. I am employed as chief engineer at KFOR and KFRX in Lincoln. It was a long shift and I was continuing work until early the next morning. After completing maintenance on the main FM transmitter, it was time to switch the main power line contactor back on to supply three phase power to the transmitter. One switch

pole, while making good physical contact, was not making electrical contact at all. I put on a glove to "protect myself" and went to clean up the pole contacts (this is a main entrance switch, so the only way to completely shut off the power to the switch is to have the local power company do it). What followed is described in the poem, "Flashback."

In case it's not obvious from the poem, the burns which I received were flash burns, not electrical burns (I now have skin grafts on all four limbs). I'm still here, typing with my arms (and hands), talking on ham radio, an out running. I still occasionally go into the hospital as an outpatient and still have my arms covered, but the "bad part" is over.

So, I'd like to submit the revised "Retreads" along with the new "Flashback" for publication in RADIOSPORTING. However, I do not want these poems to be wrapped around with a PSA message of "Beware of high voltage - it can kill" or whatever. I think that to do this would diminish that message which is already indirectly said in the poems.

For what it's worth, all things within the poem happened exactly as described- even the thoughts mentioned. I really did think, "I'd be fried before they could even get close" at the time of the "Retread" incident. I was in the middle of a fireworks display...

Finally, a bit of an explanation on the dates shown with the poems is probably in order. The dates are included only because of their pertinence to material written. The earlier date is the date that the first draft of the poem was written. The other date is when the final version was completed. For "Flashback," February 25th is the second day (out of thirteen) that I was in the hospital. The first draft was handwritten on hospital stationery. I think that I'm up to the thirtieth version of "Retreads" now (today's change was only of one word).

While "Retreads" is complete in itself, the ending line in "flashback" would not be understood without having previously read "Retreads." I am also considering submitting these poems to quarterly poetry publications. These have a limited circulation (5,000 copy maximum) and so should not conflict with RADIOSPORTING publication due to there being a very small common readership (probably under ten).

I could understand your desire to also include some of the things told in this letter, or even to expand on the incidents surrounding the poems. Please let me know if you'd like me to expand on it or if you feel that an edited portion of this letter is adequate. I want this added material to be just factual statements on what happened, not an editorial comment.

73, Bill Hohnstein, KØHA

Dear Yuri:

I was glad to hear about the new DXCA Award. I think you have a chance to help Radio Amateurs in way you might not have thought about. Up until the last two or three years, I have been very active in all types of HF contests. I also like DX, awards, and QSL cards. I've had about 125,000 contacts and received about 25,000 cards. I'm not bragging because I know many others have done more. I'm just setting the stage to describe the problems this type of operating brings.

I like to keep my cards organized so that I can determine my 5BDXCC status, etc. A serious problem I face is determining a reasonable filing order. If I go alphabetically by call sign, calls like CY3BMV, VE3BMV, and 3C3BMV end up in entirely different areas of the file. I thought about filing by ARRL DXCC countries list, but I noticed that the order of countries changed with each updated list! The League was trying to keep up with changes in international prefix assignments but I never could figure out why they bothered. The solution lies in having a countries list with a permanent order number. New countries are added to the end of the list (regardless of prefix) and given the next higher number. Deleted countries would be dropped and the number not reassigned.

How easy it would be to develop a QSL file based on such a list! How easy it would be to keep things like 5 band DXCA records on a computer if all you needed to record was the country's permanent number!

If you decided to publish a country list of your own, please assign each country a permanent number and don't shuffle them periodically. I don't think it would take the League long to recognize the value of this and copy the idea. If someone wanted to know what your records show, it could be done by simple computer printout.

If you develop a system to keep this type of DXCA records, it might pay you to consider publishing a program that could be used by all of us to keep records on a Commodore 64 with floppy disc. This way, when I apply to you for DXCA, I could include a copy of my records on floppy disk, using your format, so you could read the results directly into your data base rather than having to key all that data in line by line. I suggest the C-64 only because a recent survey that I saw said it was the most popular ham-owned computer. I have access to a Compaq also and think keeping records in an IBM PC compatible would also work very well.

The only reason I have not applied for 5BDXCC thus far is because I dread the thought of searching through my 25,000 QSL cards. I would do it, however, if I could organize the file once and for all according to some decent system.

Regards, Stan, W7NI

Dear Stan,

That is exactly what we intended for our WRC contest and partially for the DXCA. Here is the proposal for the possible standard in this issue and if the comments are favorable, we will polish it up and publish it for everybody to use. Yes, we can come up with the numbered list of countries, states, ARRL sections, zones and you name it. If we all used it, the computerized logging, record keeping and producing applications and contest logs wouldn't be a hated task anymore. A lookup tables can be set up for crossreferencing the various prefixes to the country numbers. Based on this standard, many programs could be written and the data exchanged between the various computers. Thanks for the push and let's do it! 73, Yuri

Dear Yuri,

A friend of mine, VE5UF, recently recommended your magazine to me and was kind enough to share his December issue. Needless to say I was very impressed with the frank information and presentation contained between the covers.

I have been involved on a limited scale with contesting and still enjoy participating when possible. Our other primary interest with amateur radio is in the area of HF antennas and propagation. It was quite interesting to see my call among those listed as heard/worked most often on 160 meter column coverage of a recent contest.

73, Allan Pippin, VE5PK

Welcome aboard Allan,

We hope that you will enjoy our magazine for many years to come. Our family of subscribers and contributors is growing steadily and we can only get better. 73, Yuri

NEW PRODUCTS

ICOM IC-48A 440 MHz MOBILE

Icom has announced new 440 MHz compact mobile radio with the same outstanding features as the new IC-28A and IC-28H.

It features: 440 - 450 MHz frequency coverage, compact size 5¼" x 5¼ x 2", large LCD readout with automatic dimmer, 21 memory channels, scanning and internal speaker. This new radio will be available in August.

NEW YAESU PRODUCTS

At the Dayton Hamvention, Yaesu U.S.A. announced several exciting Amateur product line introductions.

Taking center stage at the Hamvention was the FT-767GX, the world's first HF/VHF/UHF multimode transceiver. The FT-767GX comes factory equipped for HF operation on the Amateur bands (plus general coverage on receive from 100 KHz to 29.99 MHz), and optional modules extend coverage on receive meters, 2 meters, and/or 70 cm. All popular operating modes are included: SSB, CW, AM, FM, and FSK.

Among the factory-installed features are an automatic antenna tuner for 160-10 meters, CW filter, electronic keyer, speech processor, digital wattmeter, digital SWR meter, IF shift, IF notch filter, CW audio peak filter,a nd a dual VFO tracking system for OSCAR Mode A or repeater operation. An optional CTCSS unit is available for tone-access repeater work.

The FT-767GX is compatible with Yaesu's CAT (Computer Aided Transceiver) external computer protocol, for remote control operation and enhanced operating flexibility. For teletype operation, the FT-767GX is rated at 100 watts output continuously for up to 30 minutes.

Available on or about July 1st, the FT 767GX introductory price is $1,759.95, with the 6 meter and 2 meter modules priced at $169.95. Prices are subject to change due to the extreme volatility in international exchange rates.

Also introduced at Dayton were prototype models of the FL-7000 is an all solid state amplifier and the FT 290R MkII series. The FL-7000 is an all solid state amplifier with built-in automatic antenna tuner and automatic bandswitching when used with the Yaesu FT-757GX, or FT-980 transceivers. The FT-290R MkII is a 25 watt multimode mobile transceiver for 2 meters, which features an optional battery pack for portable operation at 2.5 watts output. Pending timely FCC approval, these products are expected by August 1st, 1986.

The Classified Ads rate is 15 cents per word. Remittance in full (check or money order) must accompany copy. Each word, abbreviation, model number, and group of numbers count as one word. No charge for Postal or ZIP code. Ads should be typed or clearly printed on a separate piece of paper. The closing date is the 25th of the month preceding publication. A last name or call must appear in each ad with an address or phone number.

Hamfests and Convention ads are free of charge.

Subscribers to RADIOSPORTING are entitled to one free ad per issue (max. 6 lines).

CONTEST FORMS FOR IRSA WRC, CQ WW, CQ WPX AND CAN-AM CONTESTS. Also application sheet and form kit for DXCA award. Each set includes summary sheet, multiplier check sheet, dupe sheets for Europe, VE/W and rest of the world, log sheets with 100 QSOs per page as described in RADIOSPORTING Dec.84. Send business size SAE and $1 per set to: IRSA, (see back cover for address).

BIBLIOGRAPHY "From Beverages to Oscar" with addendum up to 1981 is still available. It list all the articles published on various subjects in major magazines. Article titles are sorted and listed by subjects. Set for $ 39.99 postpaid.
Rich Rosen, K2RR, 626 Hurricane Hill Rd., Mason, NH 03048

BACK ISSUES OF RADIOSPORTING are still available 1984: DEC, 1985: FEB, MAR, APR, MAY/JUN, JUL, AUG, SEP, OCT, NOV, DEC, 1986: JAN, FEB, MAR, APR, MAY, JUN. Price includes mailing, cost $2 per issue. Complete your collection. Also reprints of articles are available for 20 cents per page plus postage. RADIOSPORTING, Box 65, Don Mills, ON, M3C 2R6 Tel (416) 438-6313

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Barry Ford, NC2V, 194A Groff Road, Monroeville, NJ 08343

DRAKE COLLECTORS UNITE! wish to exchange info with others hooked on the good old T4X and R4 stuff... B-lines, C-lines, what have you. John, K7FD, 1805 Sandpiper Dr. NW, Waldport, OR 97394

WANTED Frequency Spectrum Allocation Chart for entire spectrum (not just ham bands). Will pay for a good one. Malcolm Ringel, KN4KWD, 305 Buckhead Ave., Atlanta, GA 30305 (404) 231-0084 wkdays

EPSON HI-80 plotter with spare pens, Keychart program and optional RS-232 interface US $590. VE3BMV (416) 438-6313

WANTED - Hy-Gain Th3jr. Tri-band antenna with BAD traps or NO traps. Most any condition will be fine. WB4ZNH, Carl Henson C/B o.k. from 1973.

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WANTED pair of 6JS6C finals and 12BY7A driver tubes for FT101E. Dennis, N7CKD, (206) 833-7243

SALE HyGain TH6DXX w/BN86 balun, rebuilt with some stainless steel hardware, repairable 15 m element, you take down for $50. Have many used Radio/Electronics books, send 37 cent stamp fro list. Joe, N8EA, 1515 Sashabaw, Ortonville, MI 48462.

WANTED RF transformer by Palomar Engineers. Matches 50 Ohm to 32, 28, 22, 18, 12, rated 1 kW. For use at base of vertical. Charles Jackson, SV0AA, Box 722R, APO, NY, 09223-5362

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Purpose and objectives:

1. To promote international friendship and goodwill through sportsmanship, radio contesting and DXing.

2. To improve the quality of amateur radio operators and operating through education and experience, by voicing the opinions of radio amateurs that are experienced and have contributed to the hobby.

3. To promote amateur radio contesting and other operating-related activities as a sport, and to provide the publicity and recognition that it deserves in the public media.

4. To publish timely articles in the monthly magazine RADIOSPORTING, to feature technical articles on equipment design and modifications, antenna construction, radio-wave propagation, and commercial equipment reviews by qualified people.

5. To organize, as an annual event, the "International Contest Symposium," which runs parallel (evenings) with the Dayton Hamvention; to feature timely topics with the participation of some of the world's leading amateurs at the Syposium.

6. To hold an annual Awards Dinner with an entertainment program, where awards for various achievements will be presented.

7. To maintain and publish all time record tables for significant contests.

8. To sponsor and run an annual World Radio Championship Contest and World Contest Championship, based on results of a number of major contests, with the annual "Contester of the Year" awards in various categories.

9. To administer the "Contest Hall of Fame" and vote on awarding membership to those who have significantly contributed to the sport of contesting.

10. To coordinate and assist in the scheduling of international contests.

11. To hold regular weekly meetings on air on 20 and 80 m. (14.200, 3.830)

12. To provide an automatic, computer controlled bulletin station that transmits the latest DX and Contest news on CW and RTTY.(14.098)

13. All in all, the IRSA is dedicated to the pursuit of excellence and quality in amateur radio by promoting, publicizing and leading the way.

14. Attractive numbered membership certificates and badges are issued to members.

15. IRSA is run by contesters who are selected tor their accomplishments and it is independent of any national or commercial organizations.

16. IRSA will assist and sponsor Contests/DXpeditions, Trophies and other radio sporting and publicity events.

17. IRSA is a non profit organization, with all proceeds to be used to finance events and awards sponsored by IRSA and to cover expenses incured by Association.

18. IRSA members can display the IRSA logo on their QSL cards and correspondence; members agree to obey the Contester's Code of Ethics and to promote it.

The initial fee to join the IRSA is US $9; it includes the cost of a certificate and a badge. The yearly membership dues are US $4. (Or 22 and 10 IRCs resp.)

Honorary Life Membership will be awarded to those who significantly contribute to IRSA and the sport of contesting.

Members are entitled to be elected and to elect officers of IRSA. They will also enjoy many services and privileges offered exclusively to members.

RADIOSPORTING

INTERNATIONAL MONTHLY MAGAZINE - BY AND FOR ACTIVE RADIOAMATEURS

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Published monthly by RADIOSPORTING

Editorial offices: RADIOSPORTING
(Subscriptions) Box 65, Don Mills
ON, Canada, M3C 2R6
Telephone - (416) 438-6313 (24 hrs)

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PRINTED IN CANADA

SUBSCRIPTION RATES:
CANADA: single copies $2.50, 12 issues $24.00, 24 issues $44.00
USA: single copies $ 2.00, 12 issues US $18.00, 24 issues US $33.00
Foreign: 12 issues US $21.00
AIR MAIL: add $8 per year
Postmaster: send address changes to *RADIOSPORTING* Box 65, Don Mills,ON M3C 2R6, Canada

or in US to: *RADIOSPORTING*
Box 259, Sanborn, NY, 14132

Second class mail registration pending.
US Bulk Rate permit No. 24, Sanborn, NY